AUG 1 - 1929

THE AMERICAN
School Board Journal

A PERIODICAL of SCHOOL ADMINISTRATION

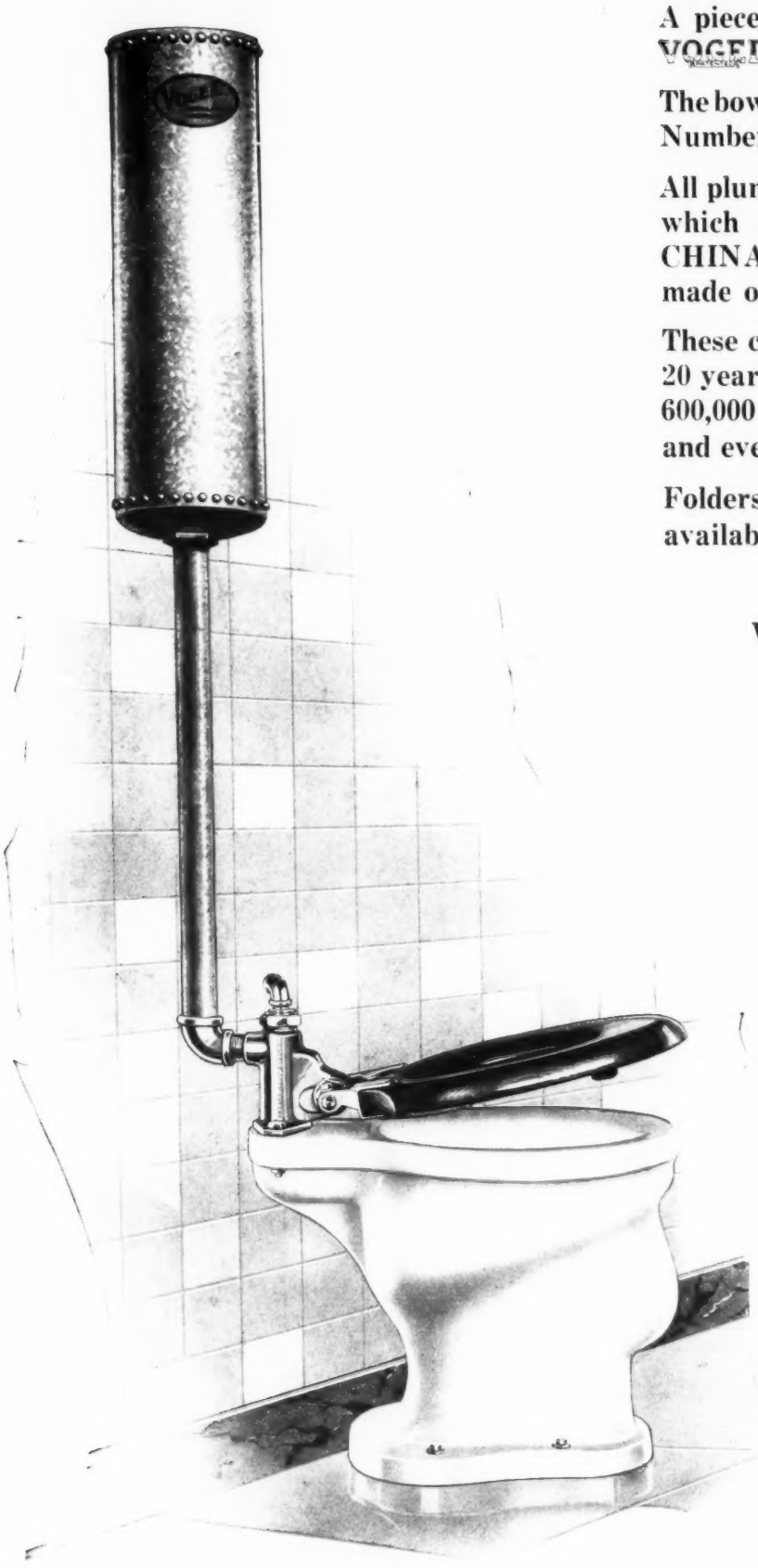
August, 1929

THE BRUCE PUBLISHING COMPANY

CHICAGO MILWAUKEE, WIS. NEW YORK

The VOGEL (PATENTED) SELFLUSH *Number Ten*

— *for Schools and Institutions*



It is the closet from which you may expect years of constant service, with practically no upkeep cost. Even rewashering should be required only after years of service.

A piece of newspaper 12 inches square dropped into a VOGEL bowl is flushed out readily.

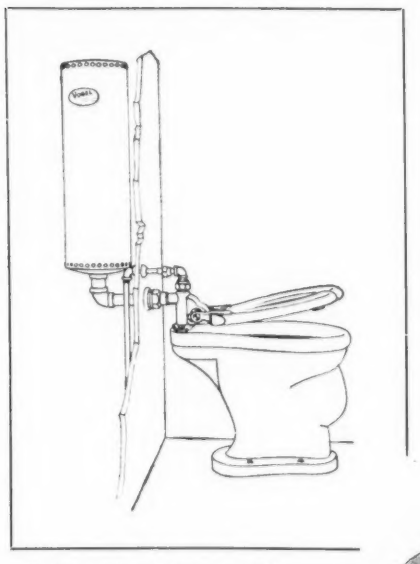
The bowl is especially designed for the VOGEL SELFLUSH Number Ten.

All plumbers know the VOGEL SELFLUSH Number Ten, which has a HEAVY, TWICE-FIRED VITREOUS CHINA BOWL, and a VALVE with all working parts made of high tension bronze.

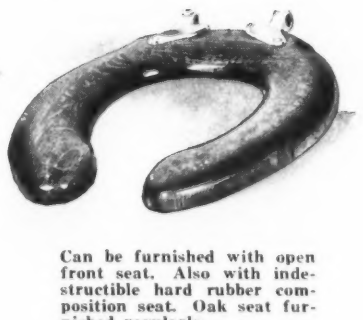
These closets are made by a concern that has more than 20 years' experience in the making of this type of closet. 600,000 VOGEL closets of various types are now in use, and every one is giving complete satisfaction.

Folders describing VOGEL SELFLUSH Number Ten are available and will be sent promptly on request.

JOSEPH A. VOGEL CO.
Wilmington, Del. St. Louis, Mo.



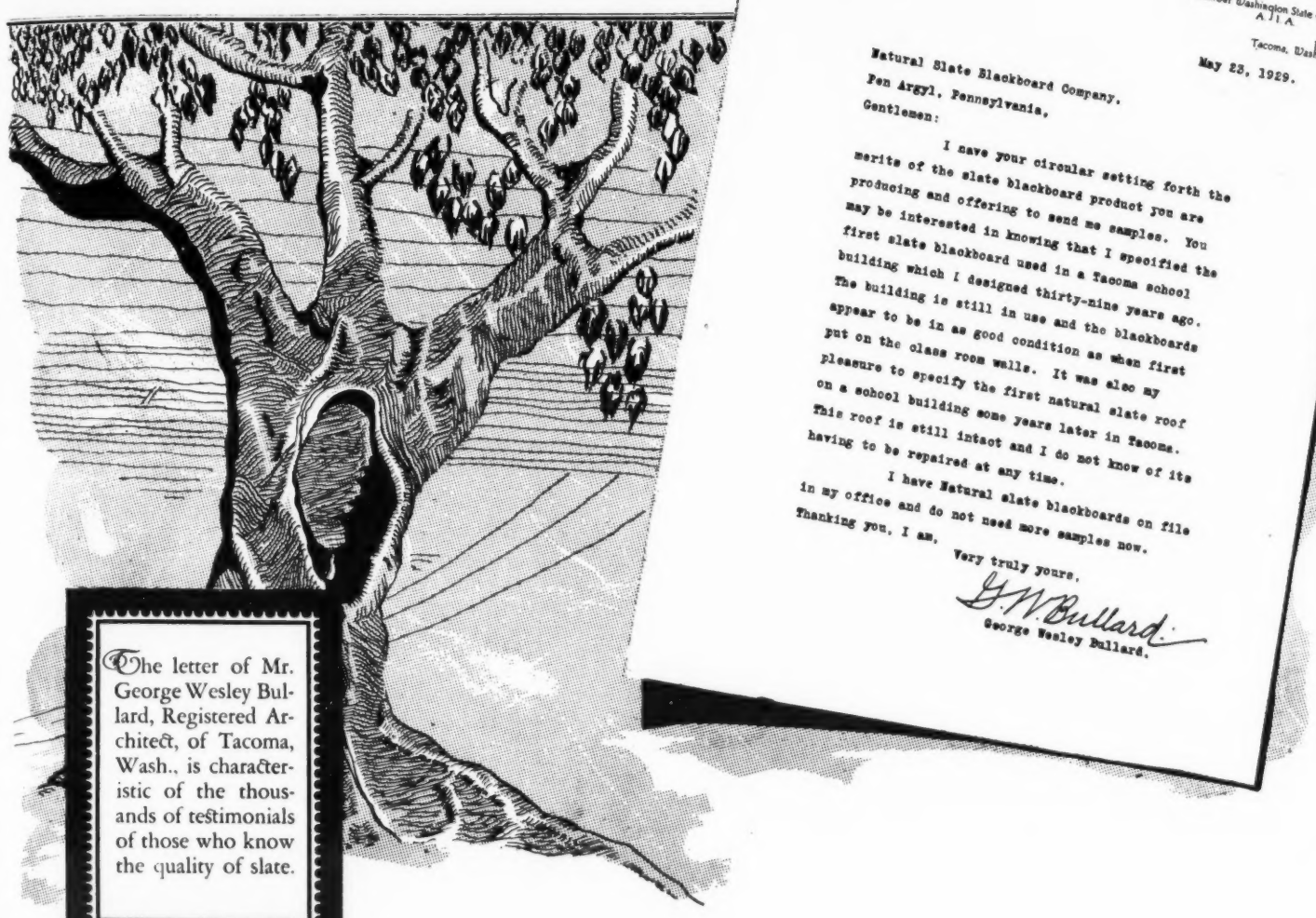
Tank can be easily concealed in the wall. Nothing can ever happen to the tank. It is heavily galvanized, well riveted, and is tested at 100 pounds air and water working pressure.



Can be furnished with open front seat. Also with indestructible hard rubber composition seat. Oak seat furnished regularly.

• • VOGEL (PATENTED) *Products* • •

LIKE the OAK


George Wesley Bullard
REGISTERED ARCHITECT
Member Washington State Chapter A.I.A.
Tacoma, Washington
May 23, 1929.
Natural Slate Blackboard Company,
Pen Argyl, Pennsylvania,
Gentlemen:
I have your circular setting forth the merits of the slate blackboard product you are producing and offering to send me samples. You may be interested in knowing that I specified the first slate blackboard used in a Tacoma school building which I designed thirty-nine years ago. The building is still in use and the blackboards appear to be in as good condition as when first put on the class room walls. It was also my pleasure to specify the first natural slate roof on a school building some years later in Tacoma. This roof is still intact and I do not know of its having to be repaired at any time.
I have Natural slate blackboards on file in my office and do not need more samples now.
Thanking you, I am,
Very truly yours,
G. W. Bullard
George Wesley Bullard.

The letter of Mr. George Wesley Bullard, Registered Architect, of Tacoma, Wash., is characteristic of the thousands of testimonials of those who know the quality of slate.

Natural Slate Blackboards Stand for Centuries

Thousands of Users Everywhere and Every Day Speak for the High Quality of Natural Slate

Back of every product of nature stands the never-failing guarantee of life-time service. There is no substitute for a natural product. Unhurried years of thoroughness that nature has employed have given, among her many products, Natural Slate! The fine, close and even grain of this remarkable rock was found years ago to be ideal for a writing surface. Its compact structure discouraged wear. Years of abuse failed to take their toll, and throughout the country today every fine natural slate blackboard stands in silent testimony of the years of service that have left them untouched.

It is only natural that the fine qualities which have built up the present popularity of this board should be imitated. In all fairness to your school and in the interest of economy and service, insist on the best, a *"Pyramid"* Natural Slate Blackboard with the guarantee that it will *"outlast the building."* No matter how often you wash a natural slate blackboard it will not harm its surface, for there is no thin layer to peel, crack or pull off---it's the same solid, velvet-like writing surface all the way through---an unimpeachable guarantee of service and lasting economy.

Two valuable books have been prepared for you, one with sizes, specifications and data, and another, an interesting story of the quarrying of slate. They are yours free. Write for them today.

NATURAL SLATE BLACKBOARD COMPANY

840 Robinson Avenue, Pen Argyl, Pennsylvania

BRANCH OFFICES IN ALL PRINCIPAL CITIES

JOHNSON HEAT & HUMIDITY CONTROL

PREFERRED

Prominent schools everywhere include Johnson Heat and Humidity Control. Johnson installations are not occasional; but general, widespread, customary. The definite benefits produced by Johnson Control are fully appreciated: — fuel economy of 25 to 40 per cent, with the better temperature comfort and essential hygienic condition desired. And Johnson Heat and Humidity Control holds first place, preferred position because of the thorough completeness of Johnson Control, the utter reliability, effectiveness and permanency which The Johnson System and its accurate operation have strongly established.

THE CITY OF RICHMOND, VIRGINIA

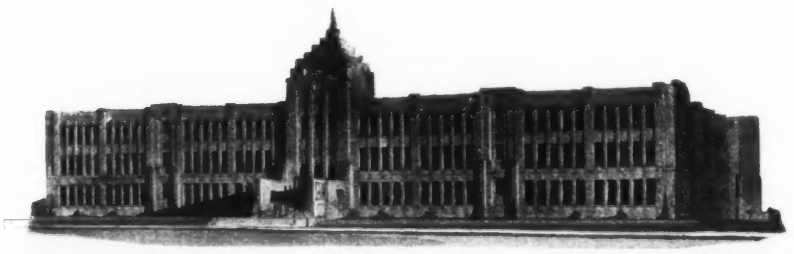
Richmond school buildings are equipped with Johnson Heat and Humidity Control, including the four prominent schools illustrated here:— CHARLES M. ROBINSON, Architect; AMERICAN HEATING & VENTILATING CO., Heating Contractor.

JOHNSON SERVICE COMPANY

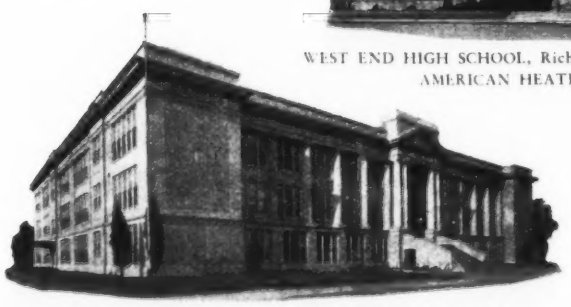
Established 1885

MILWAUKEE, WISCONSIN

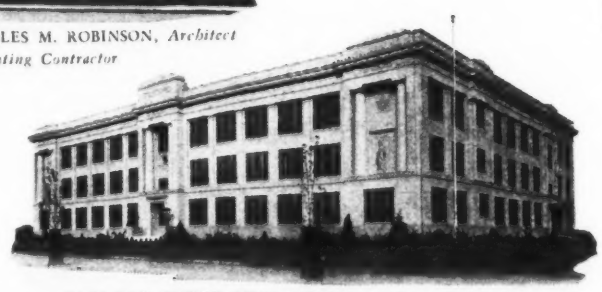
BRANCHES IN ALL PRINCIPAL CITIES



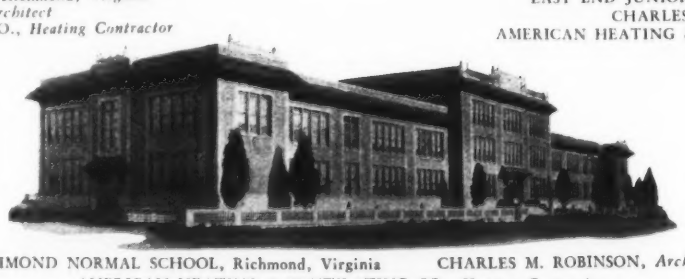
WEST END HIGH SCHOOL, Richmond, Virginia CHARLES M. ROBINSON, *Architect*
AMERICAN HEATING & VENTILATING CO., *Heating Contractor*



NORTH SIDE JUNIOR HIGH SCHOOL, Richmond, Virginia
CHARLES M. ROBINSON, *Architect*
AMERICAN HEATING & VENTILATING CO., *Heating Contractor*

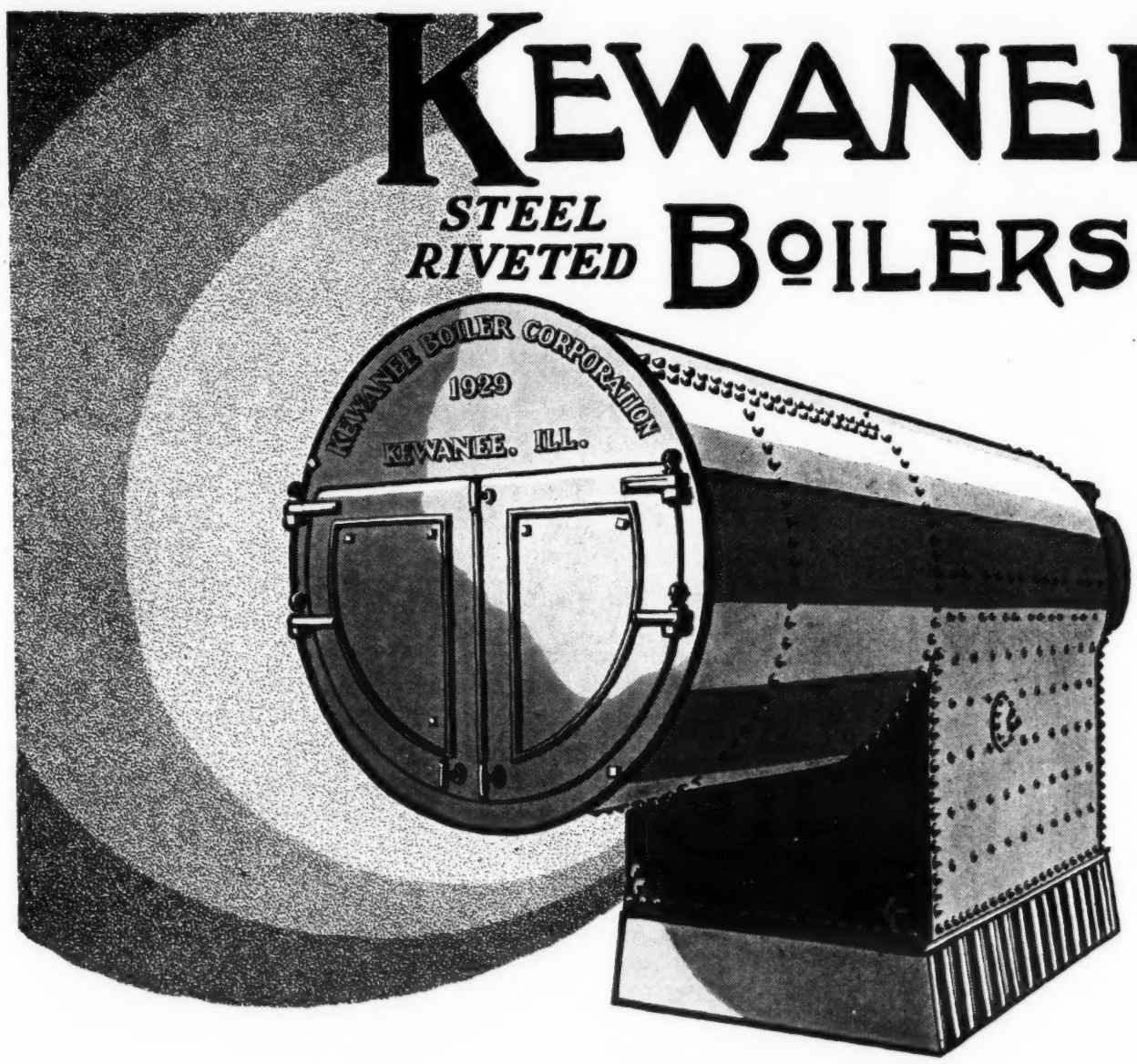


EAST END JUNIOR HIGH SCHOOL, Richmond, Virginia
CHARLES M. ROBINSON, *Architect*
AMERICAN HEATING & VENTILATING CO., *Heating Contractor*



RICHMOND NORMAL SCHOOL, Richmond, Virginia CHARLES M. ROBINSON, *Architect*
AMERICAN HEATING & VENTILATING CO., *Heating Contractor*

KEWANEE STEEL RIVETED BOILERS



In buying a Kewanee you may be sure that the boiler bill is "Paid in Full." For, a Kewanee is a permanent investment that will last as long as the building, and pay dividends, every year, through lower fuel bills and less cost for upkeep.

Whatever the circumstances, *don't buy a "cheap" boiler.* Doing so is merely making a "down payment" on the heating equipment. And every year thereafter extra installments are added in the form of bigger coal and repair bills.

Ask for "61 Years of Progress in Steel Boiler Building"

KEWANEE BOILER CORPORATION Kewanee, Illinois
Branches in 40 Principal Cities

Von Duprin

Self-Releasing Fire and Panic Exit Latches

The equipment of old school buildings with Von Duprin latches is as vitally important for the safety of the inmates as is the equipment of new buildings.

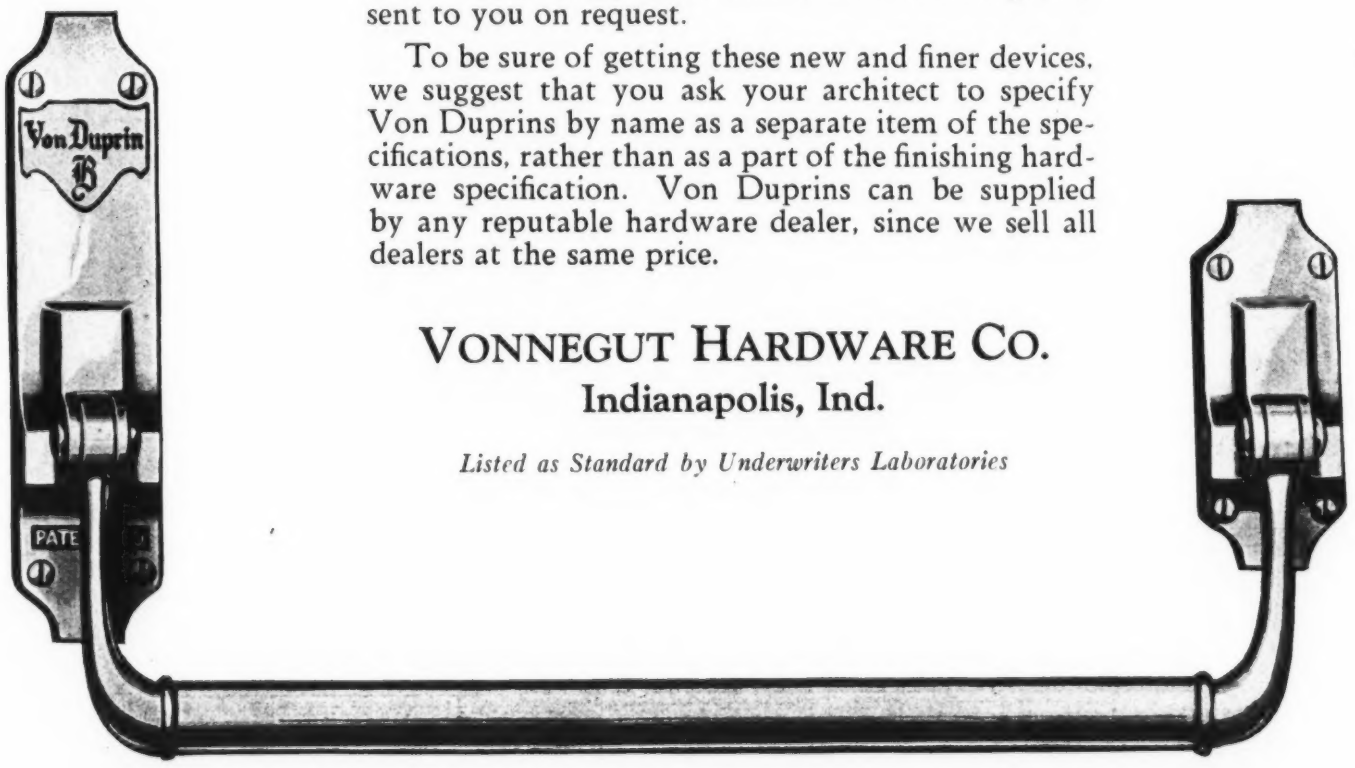
Fine Devices Made Even Better

The new series Von Duprin latches, now being delivered, reach what we believe is a new peak of efficiency and reliability.

The entire line has been redesigned for greater simplicity and strength. First costs have not been increased, and maintenance costs have been cut to what seems the irreducible minimum. A number of these improved devices have been especially designed for listed and labeled hollow metal and metal clad Paneled Single Acting Hinged Doors, and have been listed as Standard by the Underwriters' Laboratories.

A complete catalog of these new devices for metal doors has recently been issued, and will be gladly sent to you on request.

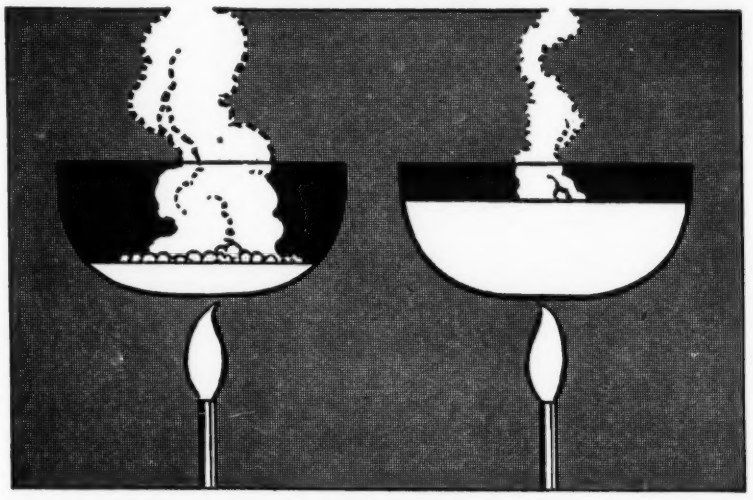
To be sure of getting these new and finer devices, we suggest that you ask your architect to specify Von Duprins by name as a separate item of the specifications, rather than as a part of the finishing hardware specification. Von Duprins can be supplied by any reputable hardware dealer, since we sell all dealers at the same price.



VONNEGUT HARDWARE CO.
Indianapolis, Ind.

Listed as Standard by Underwriters Laboratories

Which Will Boil First?



Correct water content, whether in a kitchen vessel or a heating boiler, means quick steaming and economical firing. Pacific boilers, with their correctly proportioned water content, are 20% to 30% quicker on the "getaway" in the morning than other firebox boilers. They save fuel at the time of forced firing when other boilers are wasting it.

At night, when fires are banked, the Pacific's water content is sufficient to continue to supply heat to the radiators for as long a time as a boiler with 50% greater water content. On the other hand, in the morning no fuel is wasted in heating an over-sized water content—heat that is unnecessary.

Owner, tenant, and fireman profit when a Pacific is installed. The owner saves fuel, the tenant is assured of the utmost comfort, the fireman has less firing to do and starts it at a later hour in the morning.

This properly proportioned water content, the high percentage of direct heating surface, and the Pacific's exclusive system of forced circulation give an economy and a flexibility obtainable in no other boiler.

Write for literature on the several types of Pacific installations. There is one to fit your next job.

PACIFIC

STEEL HEATING BOILERS

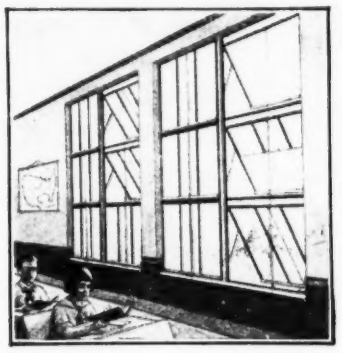
AND CAPITOL RADIATORS MAKE A LOGICAL COMBINATION

PACIFIC STEEL BOILER CORPORATION

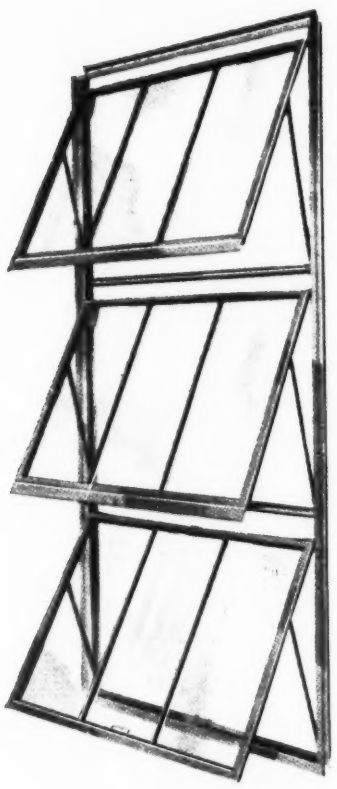
Factories: Waukegan, Ill., Bristol, Pa.

Sales Offices in 58 Cities

Division of United States Radiator Corporation, Detroit



A School Window that Protects and Invigorates



Truscon Donovan Awning Type Steel Windows are furnished in types and sizes to meet any requirement.

Build up the health of school children with nature's free aids--sunlight and fresh air. Truscon Donovan Awning Type Steel Windows promote both without the discomfort of sunglare and draughts. The lower sash controls the movement of the upper sash; all sash may be opened, or upper or lower sash alone left open—no window poles are required. Shades on sash act as awnings reflecting the light to the ceiling and diffusing it. Designed to amply meet every school requirement, Truscon Donovan Windows are so economically priced as to make them practical for every building.

Write for catalog and full information.

TRUSCON STEEL COMPANY
YOUNGSTOWN, OHIO
STEEL WINDOW DIVISION
Trussed Concrete Steel Company of Canada, Limited, Walkerville, Ont.
Warehouses and Offices in Principal Cities
Represented on the Pacific Coast by
The Universal Window Company,
1916 Broadway, Oakland, Calif.

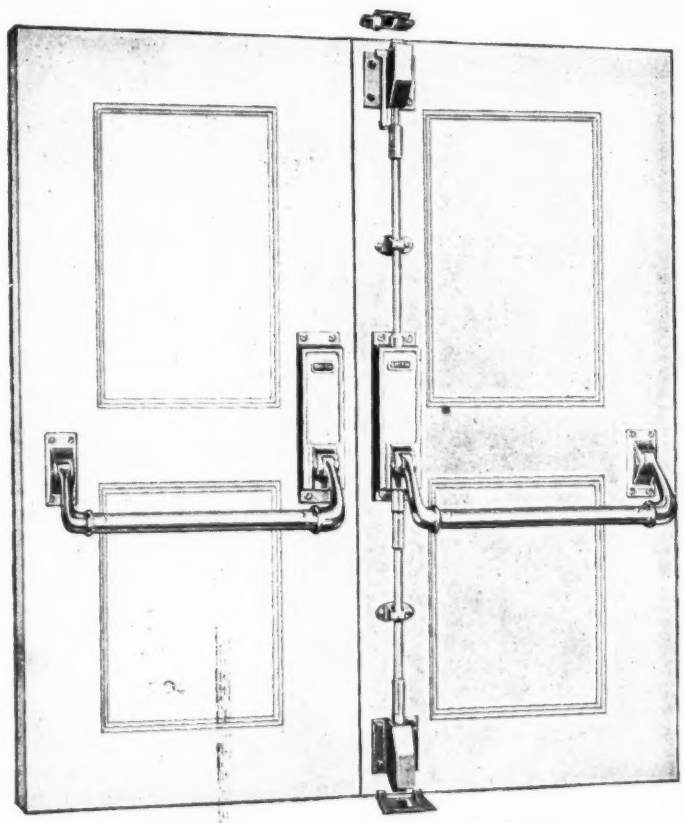
TRUSCON DONOVAN AWNING TYPE STEEL WINDOWS

THE SECRET ATM OF SUCCESS

SMITH'S IMPROVED PANIC EXIT LOCKS

NO. 80 LINE

Gravity Panic Exit Bolts



Inside View Has Outside Trim. *Inside View No Outside Trim.*

Bolts are operated by a slight pressure on the Cross Bar.

Bolts are not dependent on springs for opening or closing operation.

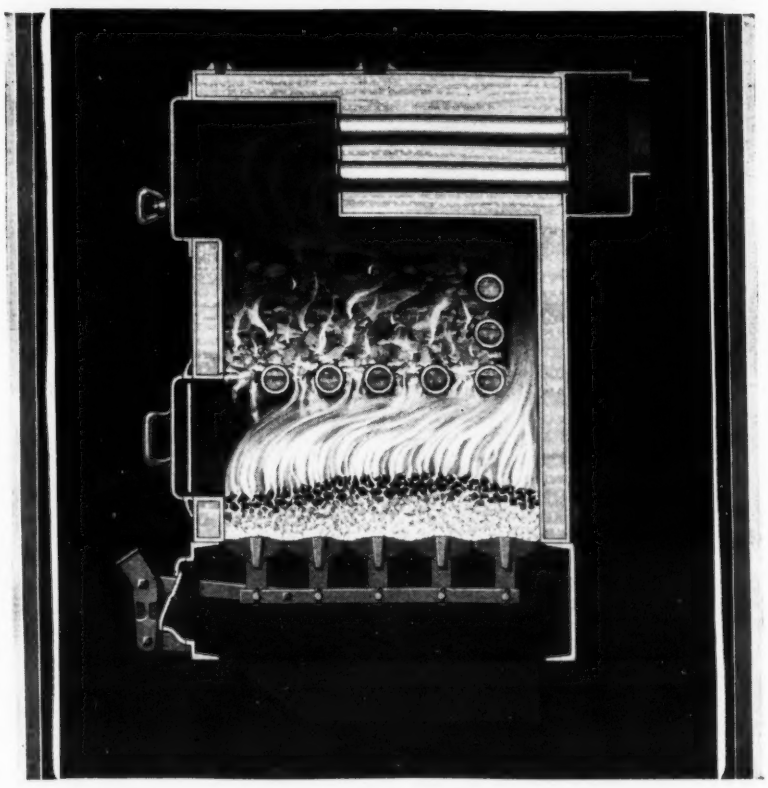
Simple but sturdy in construction and easily installed.

Will operate perfectly in connection with standard makes of door closers.

Catalogue No. 30 with Supplement "A" sent on request..

Manufactured by

THE STEFFENS-AMBERG CO.
260-270 Morris Ave.
NEWARK, N. J.



Cuts Cost of Water Heating 60%

Hot water costs drop when the Heggie-Simplex Water Heating Refuse Burner is installed. C. L. Anderson, prominent Chicago builder, says "Your burner saved 60% of the fuel as compared to the heater which it replaced."

The advanced heating-boiler style of design of the Heggie-Simplex Refuse Burner assures complete combustion of both fuel and trash and maximum utilization of usable heat units. Through a passage at the rear, the flames rise up and over the drying, burning refuse to an auxiliary chamber at the top where they thoroughly ignite all gases while still in the fire box.

Instead of entering directly into the chimney, the gases pass through a set of flues which strip them of all usable heat units. The arrangement of these flues prevents burning papers, etc., from being carried into the chimney.

Let the economy and dependability of Heggie-Simplex electric-welded, steel Water Heating Refuse Burners reduce water heating costs in your building!

Heggie-Simplex Boiler Co., Joliet, Ill. Representatives in principal cities — telephone and address listed under "Heggie-Simplex Boilers."

HEGGIE-SIMPLEX

WATER HEATING REFUSE BURNERS

Do your drains resist impact and frost . . . *year after year?*

SCHOOLS require drainage systems that give service year after year. Construction, therefore, must be planned that will resist the elements and the most unusual conditions of use, so that grounds will be ready for play at all times, except during actual hours of storm.

Dependable drainage can be assured by the use of Armco Perforated Iron Pipe. Because it is flexible this pipe will withstand impact from trucks, rollers and other heavy equipment. Actually it can be frozen solid without the slightest damage.

Ground water enters the pipe through a number of small holes in the bottom of each corrugation and not through the joints. This permits the pipe to be connected into one continuous length with joints that cannot open up and block the pipe with soil deposits.

Complete information on Armco Perforated Pipe for school, athletic field and playground uses is available on request. Send for it today.

Armco culverts and drains are manufactured from the Armco Ingot Iron of The American Rolling Mill Company and always bear its brand.

ARMCO CULVERT MANUFACTURERS ASSOCIATION
Middletown, Ohio

ARMCO perforated PIPE

© 1929—A.C.M.A.

One Protected Concrete Floor Shows the Need of Protecting the Rest

Sea Cliff Public Schools, N. Y., write, "We find your Cement Filler very satisfactory and are going to use it on more of our floors."

Like hundreds of schools and colleges, Sea Cliff Public Schools do not want to put up with crumbly cement floors when Sonneborn's Cement Filler can harden them and eliminate dust.

Cement Filler is one of the seven wonderful school preservative products described below that reduce school upkeep costs.

FOR CONCRETE FLOORS

Hardening and Dustproofing

LAPIDOLITH—This liquid chemical concrete hardener welds the loose particles into a close-grained mass that becomes granite hard. Excellent for basement or any floor receiving hardest wear. The flint-like topping withstands years of traffic. Water or chemicals do not readily penetrate it. Merely mopping and sweeping keeps a Lapidolized concrete floor sanitary. Goes on like water so labor cost is negligible. Equally efficient for old or new floors. Colorless.

Surface Coating and Coloring

CEMENT FILLER—For floors where decorative appearance is wanted as for hallways, basement rooms, toilets, etc., apply this material over new or old surfaces. Forms a wear-resisting smooth, colored top over rough, pitted or soiled floors. Four standard colors. Easy to apply. Labor cost small.

Painting

CEMCOAT FLOOR ENAMEL—Dustproofs and decorates with a glossy, washable, wear-resisting film. Comes in eight attractive colors. Exceptionally elastic. Will stand up where other floor enamels would fail. Dries in twenty-four hours. Special application for basements on floors where dampness is prevalent.

FOR WOOD FLOORS

Wearproofing and Dustproofing

LIGNOPHOL—This penetrating preservative prevents splintering, checking, warping and rotting by filling interior wood cells and fibres with oils and gums. Supplies a toughening binder that increases tensile and resisting power of wood. Safeguards floors against deterioration from dry heat and moisture, and waterproofs.

Polishing

AMALIE Liquid or Paste WAX—Where a more lustrous finish is desired, apply this highly decorative Carnauba Wax. Has high content of Carnauba which is the reason for its long wear. Use liquid for renewing polish on floors previously waxed. Use paste on new or newly treated floors.

For Walls and Ceilings

CEMCOAT—For hallways and auditoriums — wherever light is needed use Cemcoat Egg Shell or Gloss—the strongest light-reflecting white paint that is made. Not only does Cemcoat reflect more light, but it stays white after other paints turn yellow. Won't chip or peel. Can be washed over endlessly. Comes also in colors.

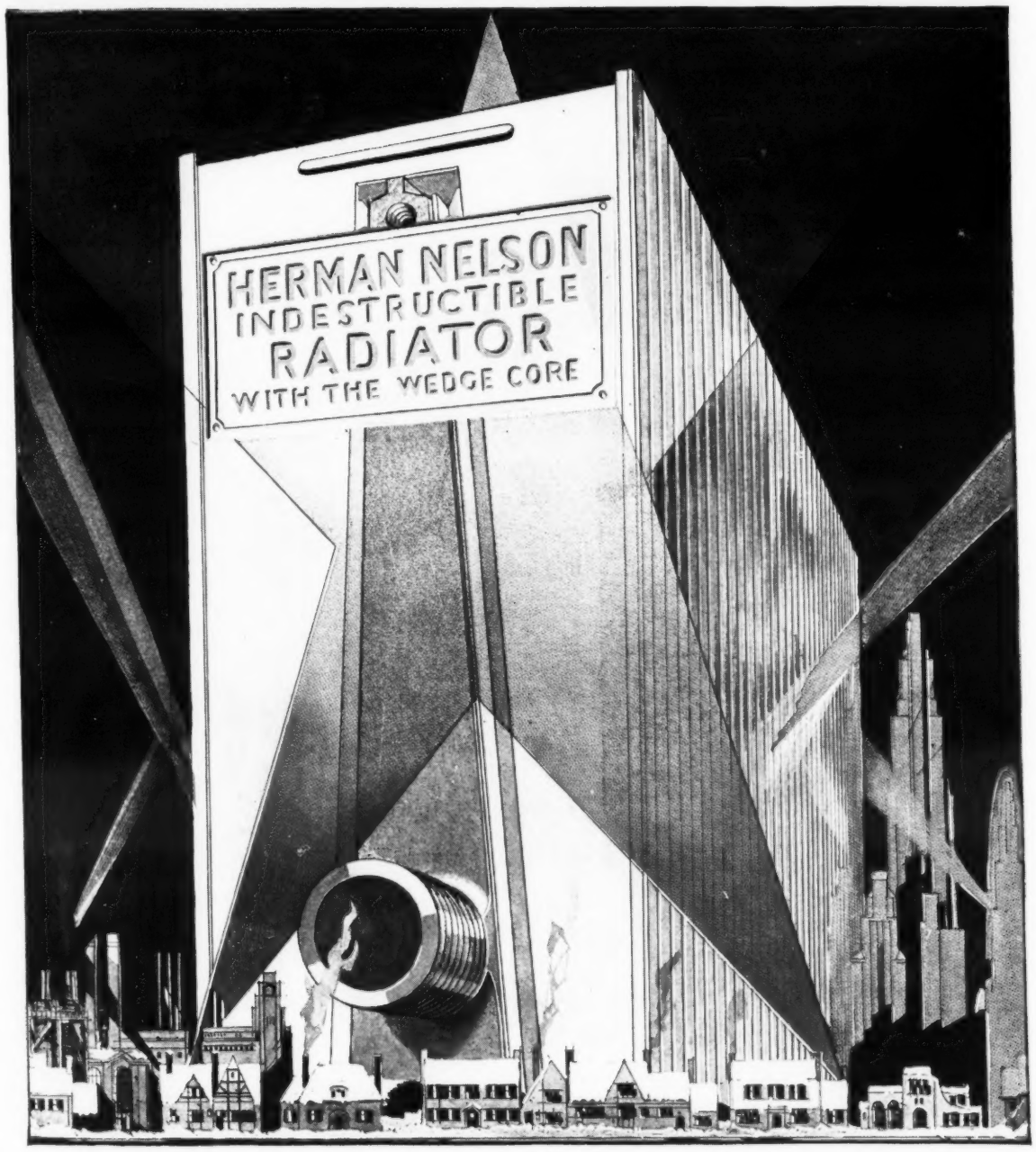
SONOTINT—Specially made for classrooms or the library. Its soft, velvety finish reflects light without glare. Comes in 18 beautiful tints that are restful to the eyes. Contains no poisonous ingredients. Washable.

L. SONNEBORN SONS, Inc.

114 Fifth Avenue, New York

L. Sonneborn Sons, Inc. SBJ-8
114 Fifth Avenue, New York
Please send literature on the following products: LAPIDOLITH ☐ LIGNOPHOL ☐
CEMCOAT FLOOR ENAMEL ☐ CEMENT FILLER ☐ CEMCOAT ☐ SONOTINT ☐
AMALIE WAX ☐
.....
.....

Our Contribution
to the art of Heating & Ventilation



SIX YEARS AGO when the Herman Nelson light weight, compact, indestructible radiator was placed on the market, it was immediately accepted as the greatest advance in the art of Heating and Ventilation in a generation. It has made possible heating and ventilation dependability and performance hitherto unattainable.

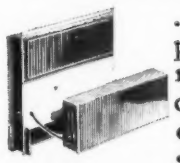
The Herman Nelson Wedge Core Radiator is an exclusive feature of all Herman Nelson Heating and Ventilating Products and accounts for their unequaled performance.

HEATING · VENTILATING · COOLING · DRYING · CONDENSING

UNIVENT

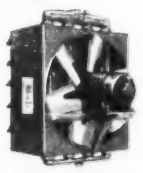
for the ventilation of schools, hospitals, offices and other buildings presenting an acute ventilating problem.

HERMAN NELSON *Invisible* RADIATOR



. . . supersedes all previous radiators, radiator cabinets or enclosures. Occupies no room space and makes possible any desired decorative scheme or furniture arrangement. Indestructible in service.

THE HERMAN NELSON hiJet HEATER



It operates at steam pressures from 1 to 150 lbs., and offers the better and more economical way of diffusing heat in Factories, Railroad Shops, Roundhouses, Mills, Warehouses, Garages, Gymnasiums and Industrial Buildings.

Herman Nelson Radiator Sections
for Blast Heating and Cooling

Indestructible, operating at any steam pressure from 1 to 150 lbs., non-corrosive and leak-proof.

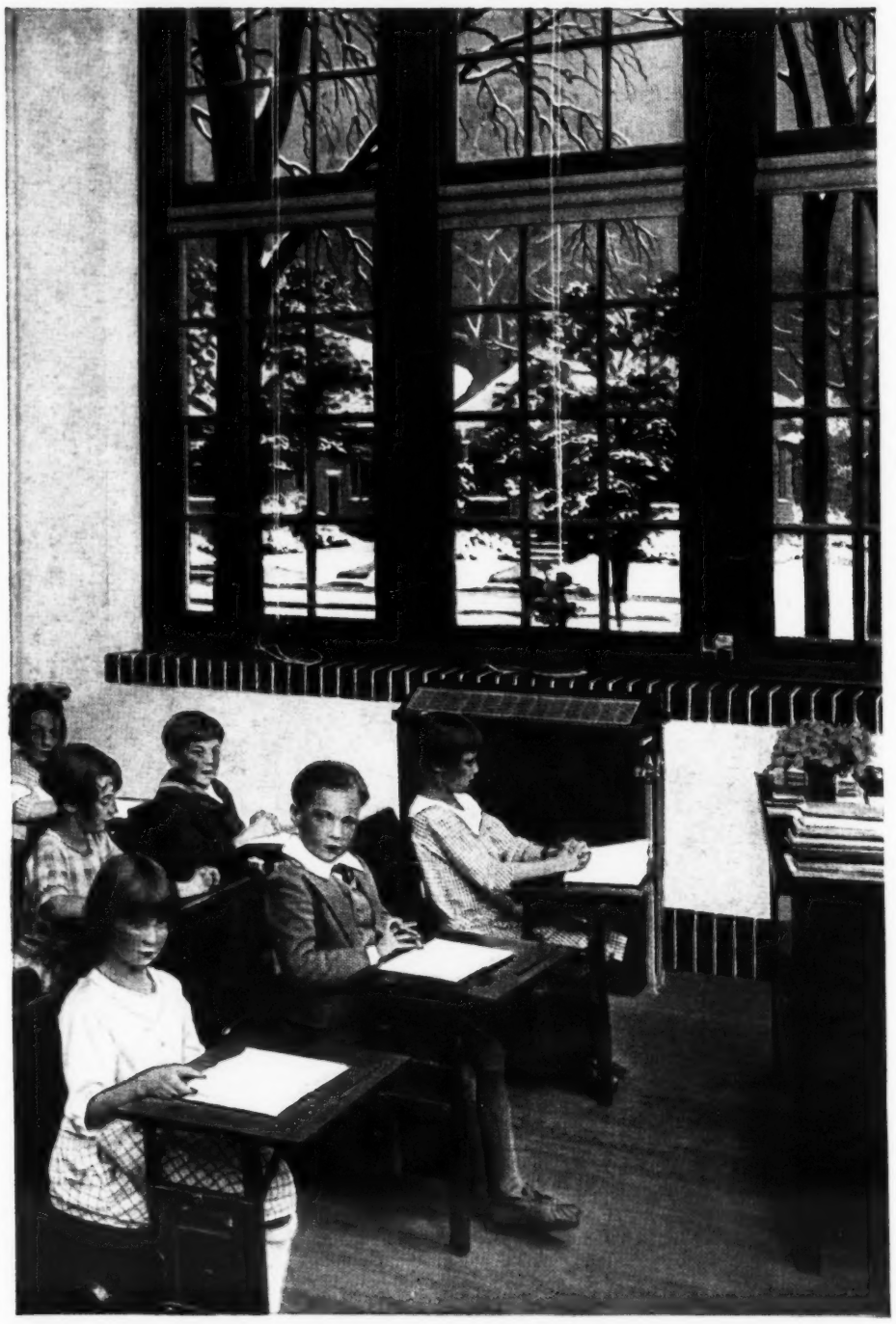
May be arranged in banks to solve any special problem of heating or cooling.

THE HERMAN NELSON CORPORATION · *Moline, Illinois*

Builders of Successful Heating and Ventilating Equipment for over 20 Years

Sales and Service

BELFAST, ME.	UTICA	SCRANTON	SAGINAW	CINCINNATI	DES MOINES	ST. LOUIS	DALLAS	SALT LAKE CITY	SAN FRANCISCO
BOSTON	BUFFALO	PITTSBURGH	DETROIT	TOLEDO	MILWAUKEE	BIRMINGHAM	OMAHA	SPOKANE	VANCOUVER
PROVIDENCE	PHILADELPHIA	CHARLOTTE, N. C.	CLEVELAND	INDIANAPOLIS	GREEN BAY	ATLANTA	EMPORIA	PORTLAND	TORONTO
NEW YORK CITY	WASHINGTON, D.C.	GRAND RAPIDS	COLUMBUS	CHICAGO	MINNEAPOLIS	MEMPHIS	KANSAS CITY	SEATTLE	WINNIPEG, MAN.
							DENVER		



Univent *and* Glass *make the difference*

Here is VENTILATION *that cannot be duplicated*

SUCCESSFUL results of the Univent have brought national recognition to the basic idea of unit ventilation. With success has come imitation; but—imitation is not duplication.

This fact is becoming more and more known: the results of Univent Ventilation *cannot* be duplicated by any other unit ventilator. The Univent's important features are exclusive to the Univent.

The Univent is a complete individual ventilating machine. Draws air directly from out of doors. Cleans it. Warms it to a comfortable temperature. Distributes it gently to every corner of the room—without draft. Simpler than opening windows and there is no question as to results—

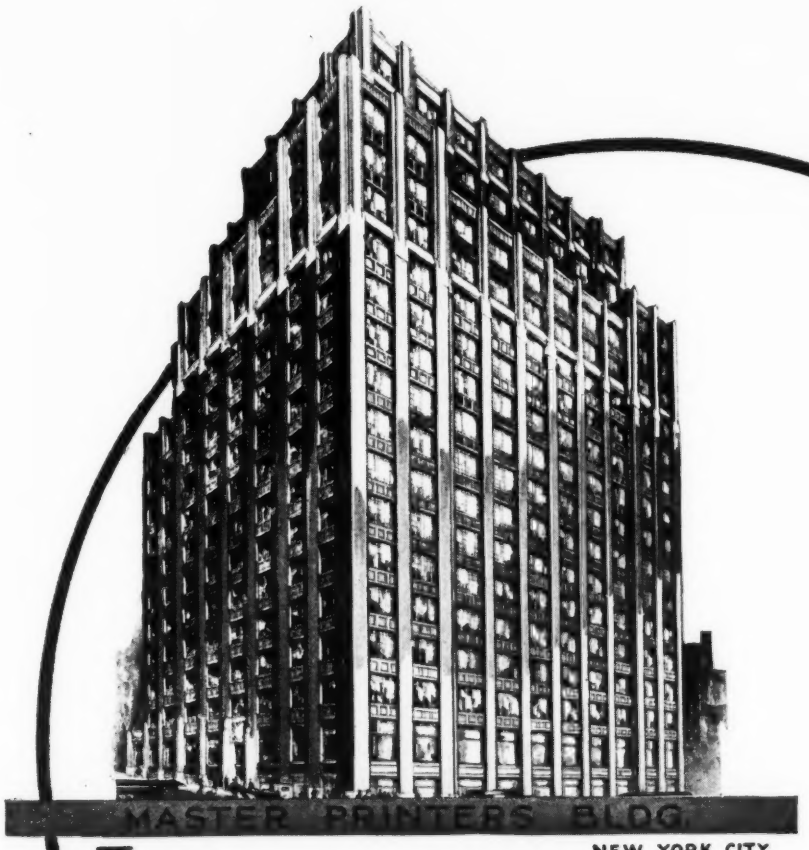
no other ventilator gives

because Univent results are obvious.

Better health and attendance records—better concentration of pupils—satisfied teachers—these are some of the results credited to the Univent by school authorities, architects and engineers everywhere who endorse it as the most simple, efficient and economical system of ventilation known. Write for free book of facts, No. 29. The Herman Nelson Corporation, Moline, Illinois.

UNIVENT (TRADE MARK)

VENTILATION



NEW YORK CITY

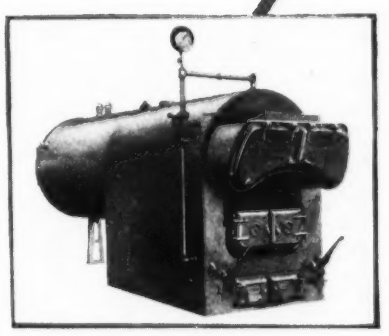
In New York's prominent buildings

THROUGH the years, as new principles of construction justify themselves Titusville adopts them.

Today as during yesterday and as will be tomorrow, Titusville Boilers keep a step ahead —built better than the needs of today, but justified in their performances of tomorrow.

That is why you'll find them in many of New York's prominent buildings.

THE TITUSVILLE IRON WORKS CO.
Titusville, Pa.



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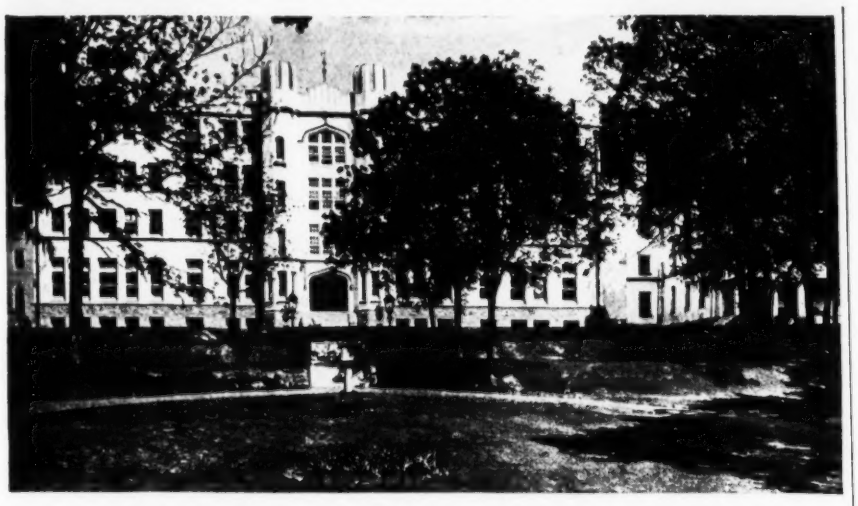

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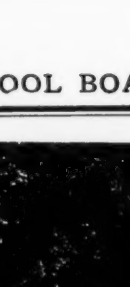

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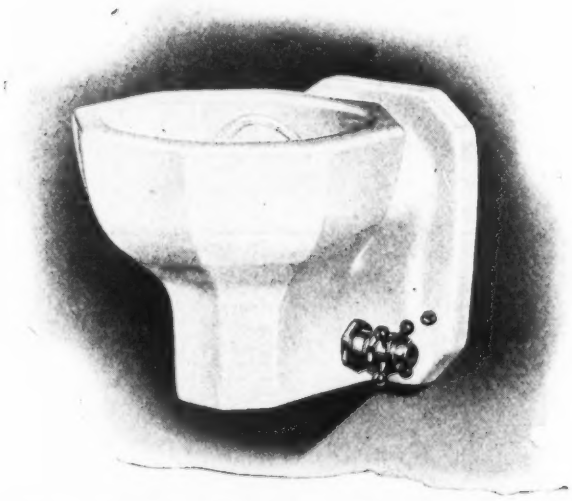

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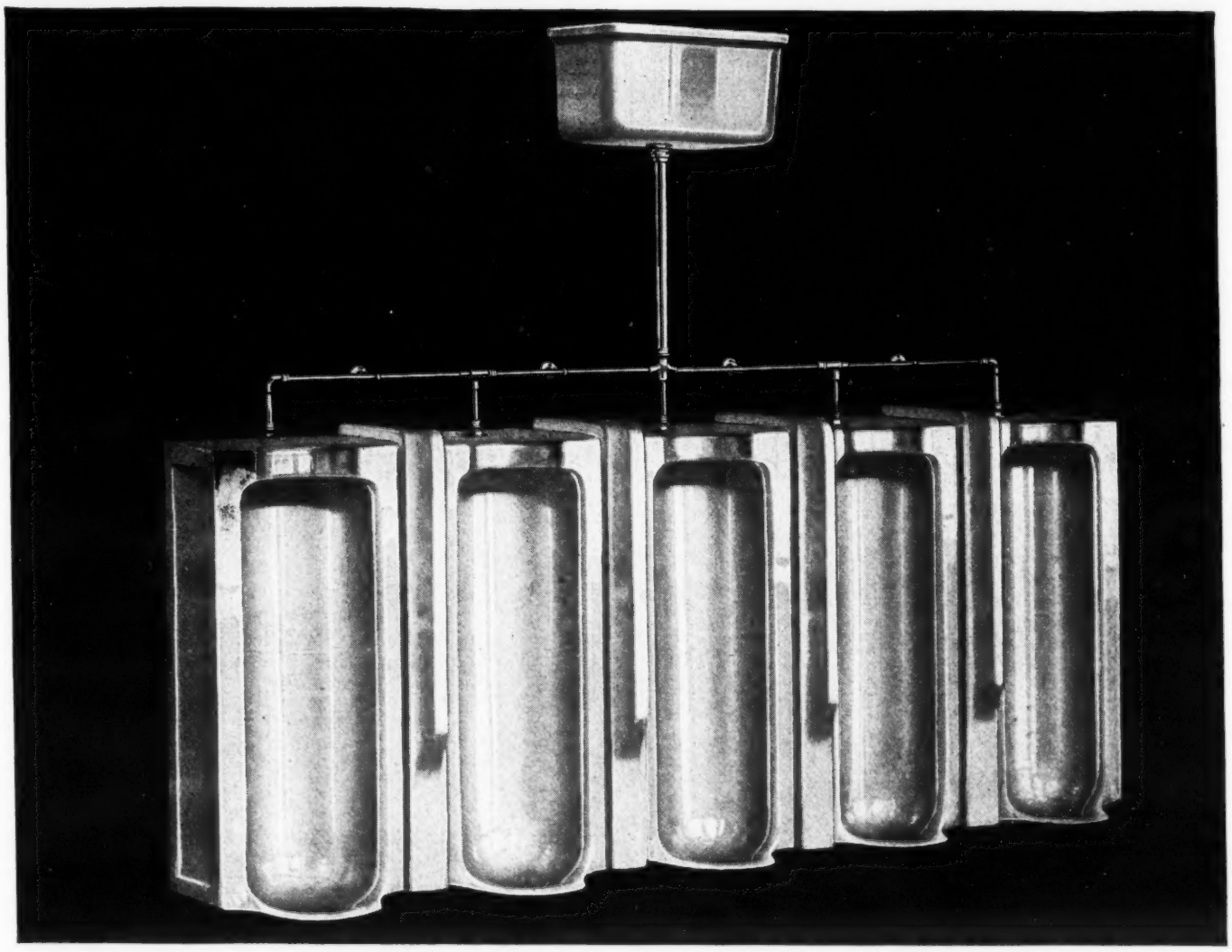

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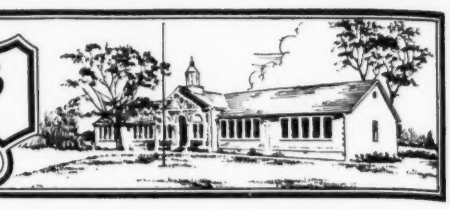

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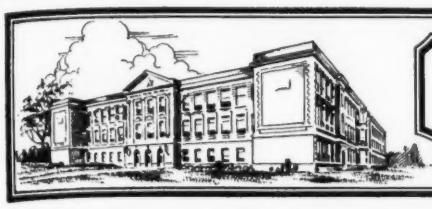

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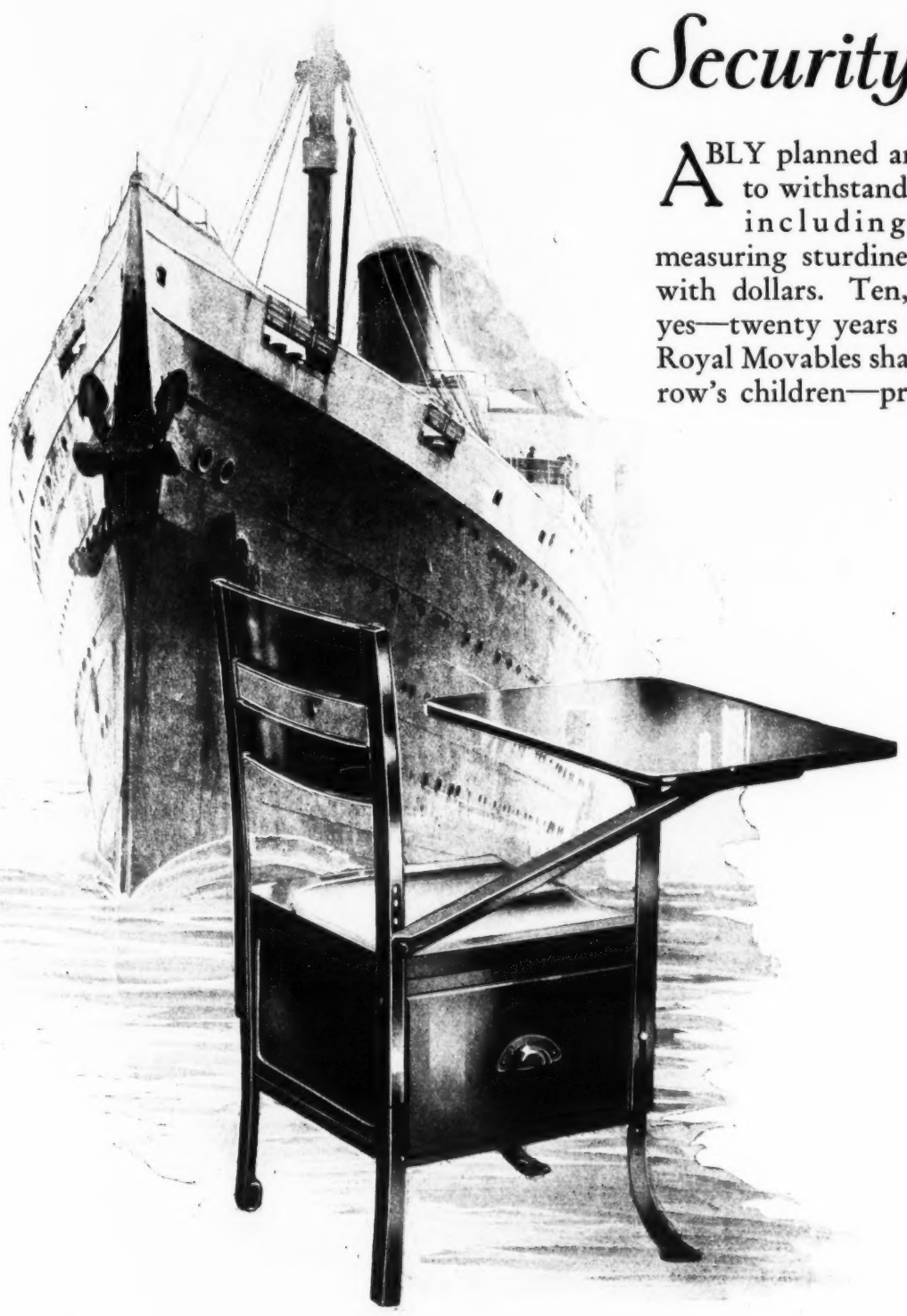

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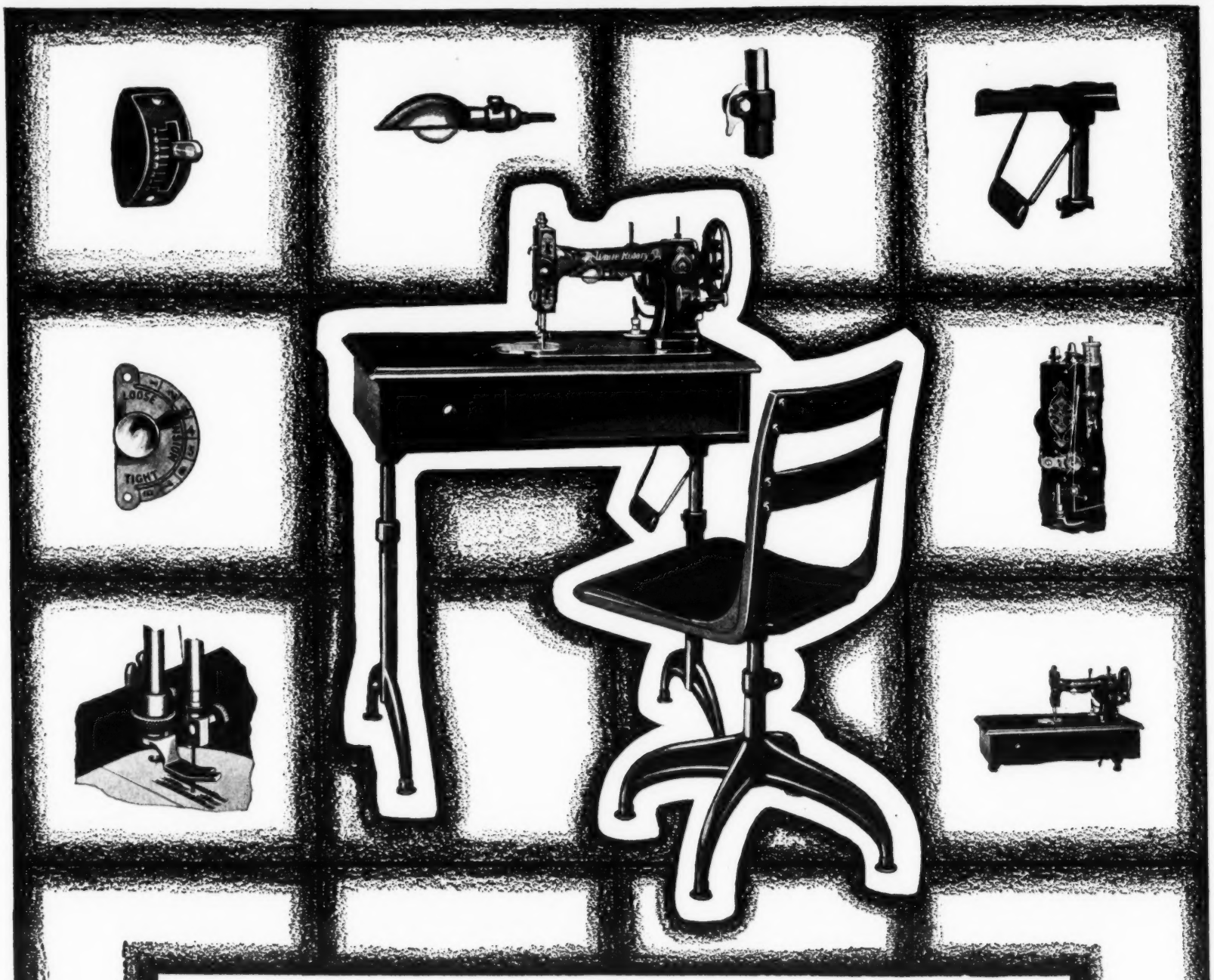

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Kundtz furniture should receive your particular consideration on these three essential points—CORRECT POSTURE, DURABILITY and SANITATION. Kundtz engineers have always "led the way" in developing seating facilities along these lines.

Below are a few outstanding examples of what is newest and best in modern classroom furniture.

Before making a decision, you will benefit by investigating the Kundtz line. Send for our latest catalog. The Theodor Kundtz Company, Cleveland, Ohio (Division of the White Sewing Machine Corporation).

(Note: All prices quoted are less car load shipment —f. o. b: Cleveland. Quantity prices on request.)

Adjustable Steel Desk and Chair
Model No. 405
Simplified adjustment. Chair equipped with new device which permits it to revolve for black board recitation.
Large Size—Open Box $8.65 each
f. o. b. Cleveland

The Movable Adjustaplex
Model No. 640
Grace of line, ease of adjustment are outstanding features here. Built to give years of satisfactory service.
Large size—Lift Lid $12.00 each
f. o. b. Cleveland

Tablet Arm Chair
Model No. 704
The latest design in tablet arm chairs. Movable, adjustable, rigidly constructed.
$6.20 each, f. o. b. Cleveland

Single Pedestal Stationary
Model No. 851
This type desk now being used in most of the larger cities in Junior and Senior High Schools. Especially sturdy to resist hard wear.
Large Size—Open Box $9.25 each
f. o. b. Cleveland

The Theodor Kundtz Company
CHURCH AND ECLIPSE AUDITORIUM SEATING
SCHOOL FURNITURE
Cleveland Ohio, U.S.A.

BLACKBOARDS
FOR EVERY SCHOOL NEED

The Rowles line of blackboards offers three distinct products, each designed to fill a particular need of price and purpose, yet all having the same smooth velvety surface that is characteristic of Rowles blackboards.

ENDURAROC BLACKBOARD

ENDURAROC is a very practical blackboard for every type of school building regardless of size, cost or location. It is fire and water proof, will not warp,bulge, expand, or contract. It is uniform in thickness, light in weight, is available in long lengths, easy to handle, and cannot be broken by jars or vibration. It may be fastened to any kind of wall. ENDURAROC is easily installed by any carpenter or competent workman, although inexperienced in erecting blackboards. It will outlast any type of school building.

PERMAROC meets every blackboard requirement. It is made of enduring material and will outlive the building. Where permanency is desired and economy rules we strongly recommend PERMAROC. PERMAROC is not affected by atmospheric changes, heat or cold, or any other of the factors which cause warping. It, therefore, remains flat and smooth year after year. Gypsum rock, the base of PERMAROC, offers no fuel to flame; therefore PERMAROC is fireproof. The comparative cost of PERMAROC being low, the cost of installation being nominal, the time required to erect it being short, the whole operation is a most economical one and the results are all that can be desired in permanent blackboard at a low cost.

DUROPLATE THE GUARANTEED BLACKBOARD

DUROPLATE blackboard is considered one of the most reliable wood fibre blackboards obtainable. It is adapted for use in any building, permanent or portable. It makes an excellent blackboard for general use, temporary classrooms, Sunday Schools, nursery rooms, kindergartens, conference rooms and for lecture purposes, bulletin boards and many other uses, too numerous to mention.

Modern manufacturing equipment, volume production methods and 30 years experience in manufacturing blackboards assures uniform quality, lowest prices, prompt shipments and maximum service and satisfaction.

Rowles blackboards merit investigation and careful consideration. Samples, prices and details upon request.

E.W.A. ROWLES CO.

2345-2351 South La Salle Street
CHICAGO ILLINOIS

Dealers—Write for Agency; some Good Territory still open

ATTRACTIVENESS

Is gained in the **VIKING** Steel Folding Chairs by their pleasing design. This is further emphasized by the beautiful and durable finishes. The attractiveness of the **VIKINGS** and the variety of beautiful color finishes assures a chair that is in harmony in any surroundings.

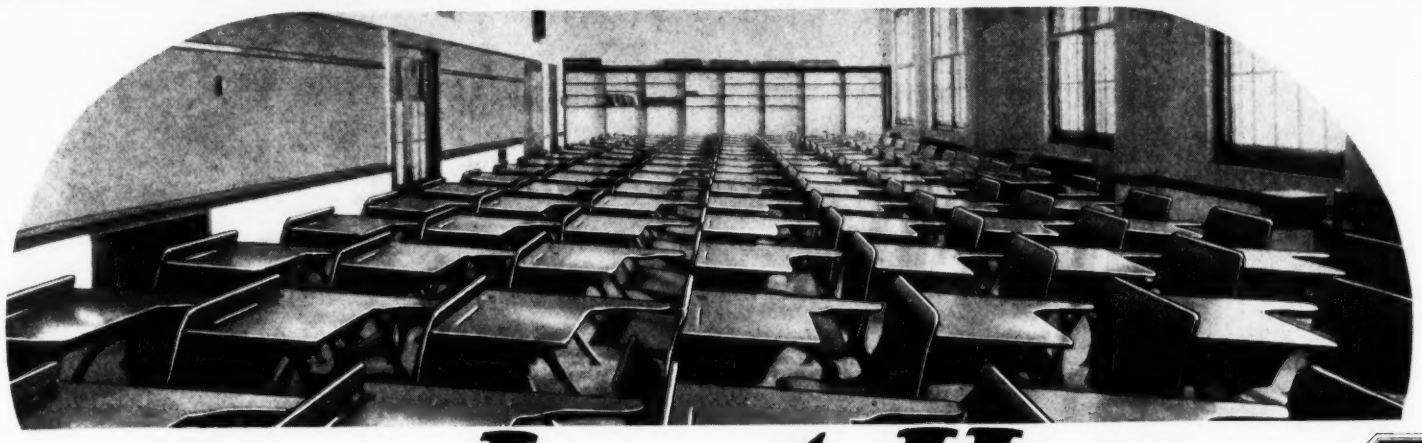
CONSIDER THESE **VIKING** FEATURES

VIKING NO. 500

STURDINESS	*ATTRACTIVENESS*
RIGIDITY	COMPACTNESS
INDESTRUCTIBILITY	BALANCE
ECONOMY	QUIETNESS
COMFORT	LOW PRICE

VIKING NO. 1000

MAPLE CITY STAMPING COMPANY
PEORIA, ILLINOIS



Here, That Last Hour

is an Hour of Comfort

This school room is equipped with National Desks with the Moeser Extended Arm. Here pupils do not turn in their seats to rest their arms while writing — they do not keep muscles tense in holding uncomfortable positions. In this room Last Hour classes are not noticeably different from other classes — pupils are comfortable — teachers are not under the usual last-hour strain.

NATIONAL Seats of Comfort
with the Famous
MOESER EXTENDED ARM

are shaped to conform hygienically to the human figure — they encourage correct posture — insure greatest comfort — less fatigue — less eye strain — better grades in last hour classes and less worry and nerve strain on the teacher.

In National Desks equipped with the Moeser Extended Arm, pupils sit squarely in their seats, the back is supported when writing, working space is doubled, the arm is rested on the Moeser Extended Arm while writing. This eliminates facing the light and uncomfortable positions that bring on last hour uneasiness. Better grades and better penmanship result.

No. 101. Combination Desk with Moeser Arm Top. Standards finished in durable, baked enamel; woods, in National process finish, both in a soft brown color.

This 10 Point Test Leads to NATIONAL

1. **Health**
2. **Comfort**
3. **Convenience**
4. **Strength**
5. **Durability**
6. **Compactness**
7. **Lasting Finish**
8. **Harmonious Design**
9. **Simplicity**
10. **Sanitation**

Years of collaborating with America's leading educators, together with our own exhaustive research and experiments, have resulted in equipment noticeably superior from the viewpoint of these 10 Major Tests for All School Seating.

Write for New NATIONAL CATALOG

If you are a buyer of School Equipment you will want our latest catalog on School Desks. All types of school chairs and teachers' and office desks. We will send our catalog free and prepaid on request.

No. 31. New National Chair-Desk. Equipped with the Moeser Extended Arm.

National Chair Desk in use.

THE NATIONAL SCHOOL EQUIPMENT CO.
Manufacturers of Complete School Equipment
PORT WASHINGTON, WIS.

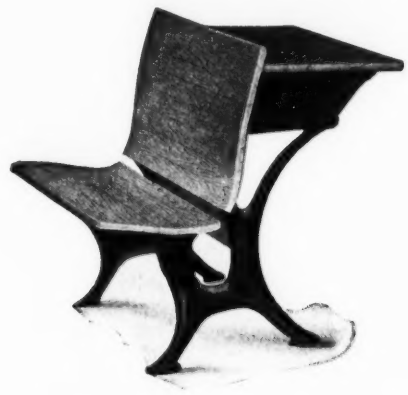
NATIONAL School DESKS
"Famous for Comfort"

CHAIRS - DESKS - FOLDING CHAIRS - COMBINATION DESKS - ADJUSTABLE DESKS - THEATER CHAIRS

A COMPLETE LINE

Unexcelled in Design and Honestly Built

Right — Theater Chair No. 600A. is the Ideal seating equipment for school auditoriums.



Left—The "Panama" combination desk with noiseless hinge and the new Double Lip and Undercut method of joining wood and iron.

Below — The most popular folding chair made is the famous Peabody No. 70.

Twenty-six years of square dealing with American Schools has firmly established the Peabody reputation for quality of product and quality of service. We offer you without cost, the service of our seating experts in the solution of *your* problems.

Send for the latest Peabody Catalog.

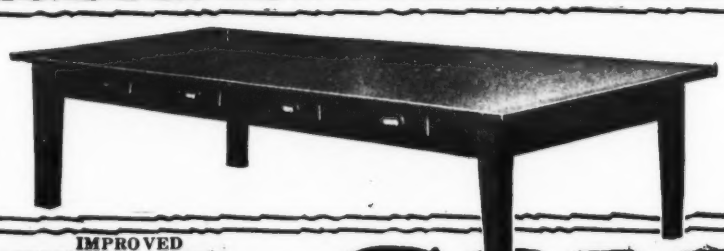
Below—Peabody Portable Assembly Chair Sections are *built* together — not simply individual chairs fastened to long section strips.

The Peabody Seating Co.

Formerly the Peabody School Furniture Co.

North Manchester Indiana

TABLET ARM CHAIRS - RECITATION SEATS - MOVABLE CHAIR DESKS - TEACHERS' DESKS - ASSEMBLY CHAIRS



IMPROVED

ELGIN SCHOOL TABLE

Vacation Time ••• A Good Time to Modernize

NOW is a very opportune time to equip your school with the modern system of group instruction for first and second grades. Efficiency demands the ELGIN. It is a step forward in modernizing instruction methods. A convenient, easily-moved table, permits cleaning of floor space. Hygienic, sanitary. Allows pupils greater freedom, increases seating capacity, reduces costs, and follows out the successful new plan of "group instruction." Send for free booklet, "Seating Efficiency," giving details of this modern method.

RINEHIMER BROS. MFG CO.
DEPT. OF SCHOOL FURNITURE
ELGIN, ILL.

Modern Schools have Adopted this Inkwell

Air-Tight — Non-Evaporating — Dust-Proof

Here is the new, improved, all-hard-rubber Sengbusch Self-Closing Inkstand. No breakage, saves books and clothes. No school can afford to do without them.

SAVES 75% OF YOUR PRESENT ANNUAL INK BILL

Adopted as standard by the business world. Millions in use giving satisfactory service. Simple to install, no special tools required. Further information will gladly be sent to you on request.

Sengbusch

Self-Closing Inkstand Company
518 Sengbusch Building, Milwaukee, Wis.

New Designs of INDESTRUCTO SANI-STEEL School Furniture

THE DUTCHESS AUDITORIUM CHAIR

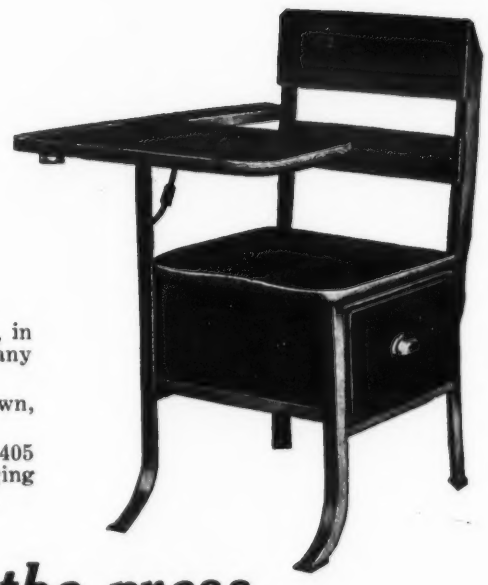
Beautiful, dignified, comfortable. Standards of pressed steel with noiseless double ball and socket hinge, finished olive green unless otherwise ordered. Seat and back of 5 ply ⅛ maple of the proper curves, finished dark mahogany unless otherwise ordered. Each $3.50, with ¾-inch back $3.75.

INDESTRUCTO CORRECT POSTURE MOVABLE ADJUSTABLE DESK

The back and seat are curved to fit the body and support the pupil in the correct posture as ascertained by the Correct Posture League and other authorities. A great advance in School Seating, seat top and back are of maple plywood built with casein glue, finished in schoolroom brown. Steel frames in olive green unless otherwise ordered. Prices including inkwell Nos. 1 and 2—$5.25; Nos. 3 and 4—$4.95; Nos 5 and 6—4.65. Drawers, all sizes, 95 cents.

No. 65 STEEL BOOK CASE WITH DOORS

Dimensions: 12 in. deep by 40 in. wide by 55 in. high, each $30.00.



THE COLUMBIA INDESTRUCTO ADJUSTABLE MOVABLE DESK

Shown at the right. The top is adjustable in height, in tilt, and has a leveling adjustment not possessed by any other desk.

Wood parts are of oak, finished in schoolroom brown, while the steel frames are finished olive green.

No. 400-1 and 2, $4.95; No. 403 and 404, $4.65; No. 405 and 6, $4.35; B Drawer, $0.95. Inkwells with steel swinging holders, $0.15. Back panel above bookshelf, $0.20.

COLUMBIA INDESTRUCTO CHAIR

Sturdily constructed with posture seat and back. Large size $2.85; Kindergarten size $16.00 per dozen.

Our New Catalog is now on the press

STRUCTOFOLD CHAIRS

Guaranteed to endure hard usage. Our special circular gives a choice of many designs. Any chair may be had with plywood scroll seat as in APW and HPS; with steel scroll seat as in BOS or with a steel flat seat. In some numbers a choice of plywood or steel back is given. Rubber shoes for tubular patterns @ 15c per chair: Any patterns may be fastened in racks or rows as shown @ $3.00 per dozen.

Prices per dozen: HPS $25.00; FPW $22.50; BOS and APW $20.00.

HPS FPW BOS APW

COLUMBIA SCHOOL SUPPLY COMPANY, INDIANAPOLIS

SILENT GIANT
COMBINATION DESK
Absolutely the first Sanitary Desk offered. All have imitated its general outline—none have excelled its quality.

ACADEMIC CHAIR DESK
A step ahead of other desks of this type—has perpendicular and horizontal adjustment.

No. 600 ADJUSTABLE
PEDESTAL DESK
Simple rigid perpendicular adjustment. Automatic "plus and minus" adjustment.

WE ARE BROADCASTING

to

THE 4 CORNERS OF THE EARTH THAT OUR NEW, IMPROVED, AND AUGMENTED LINE OF

SCHOOL DESKS

and

SEATING FOR SCHOOL AUDITORIUMS IS SECOND TO NONE IN THE WORLD

A Style to Suit Every Preference
A Quality to Satisfy the Most Exacting
A Price to Fit Every Purse

If you contemplate purchase of school furniture, it will be to your interest to get in touch with us. By all means send for our New Catalog.

If you are dealing in school equipment let us acquaint you with what we have to offer. We have some territory open to offer high class representatives.

ARLINGTON SEATING CO.

Arlington Heights, Ill.

THE NEW SANFORD
MOVABLE DESK
The original of its type. It has been freely imitated but never equaled.

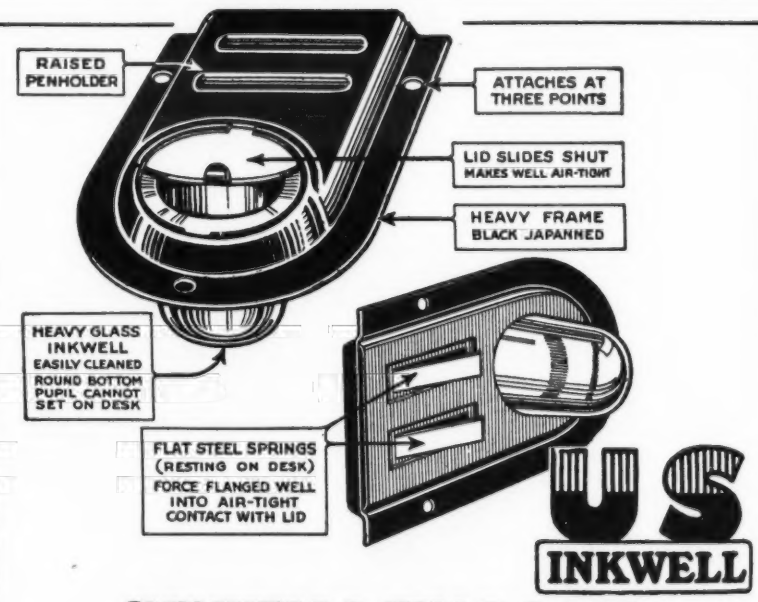
EVER FAST PEDESTAL DESK
The first double stem pedestal desk ever offered. There are imitations of this desk but none to compare.

PEDESTAL TABLET
ARM CHAIR
A standard design with a superior quality.

ASSEMBLY SEATING

The features of No. 251 are so distinctly favorable in its type as to make it a class by itself. Its continuous back, serpentined to comfortable curves, covers the necessity of reinforced glue tenons or dowels. The wood parts of the folding seat are dadoed to steel arm supports—avoiding a glue framed construction. The seat is frictioned to prevent noise and does not hit the back when folded. The shape and thickness of the legs overcome splitting or chattering over the floor. When folded these chairs stand alone with feet on the floor and they may stacked without marring. They are sturdy, comfortable and made of oak.

BRUNSWICK SEATING WORKS, INC.
(Licensed Manufacturers)
LAWRENCEVILLE, VIRGINIA



INKWELLS THAT LAST!

HUNDREDS more school boards every year are standardizing on U. S. Inkwells for replacements as well as standard equipment. They know from experience that this inkwell costs little, works well, and outlasts two or more ordinary inkwells.

The U. S. Inkwell is dustproof and noiseless. It does not tempt pupils to waste time.

U. S. Inkwells can pass your most rigid examination. Check the answers to these questions:

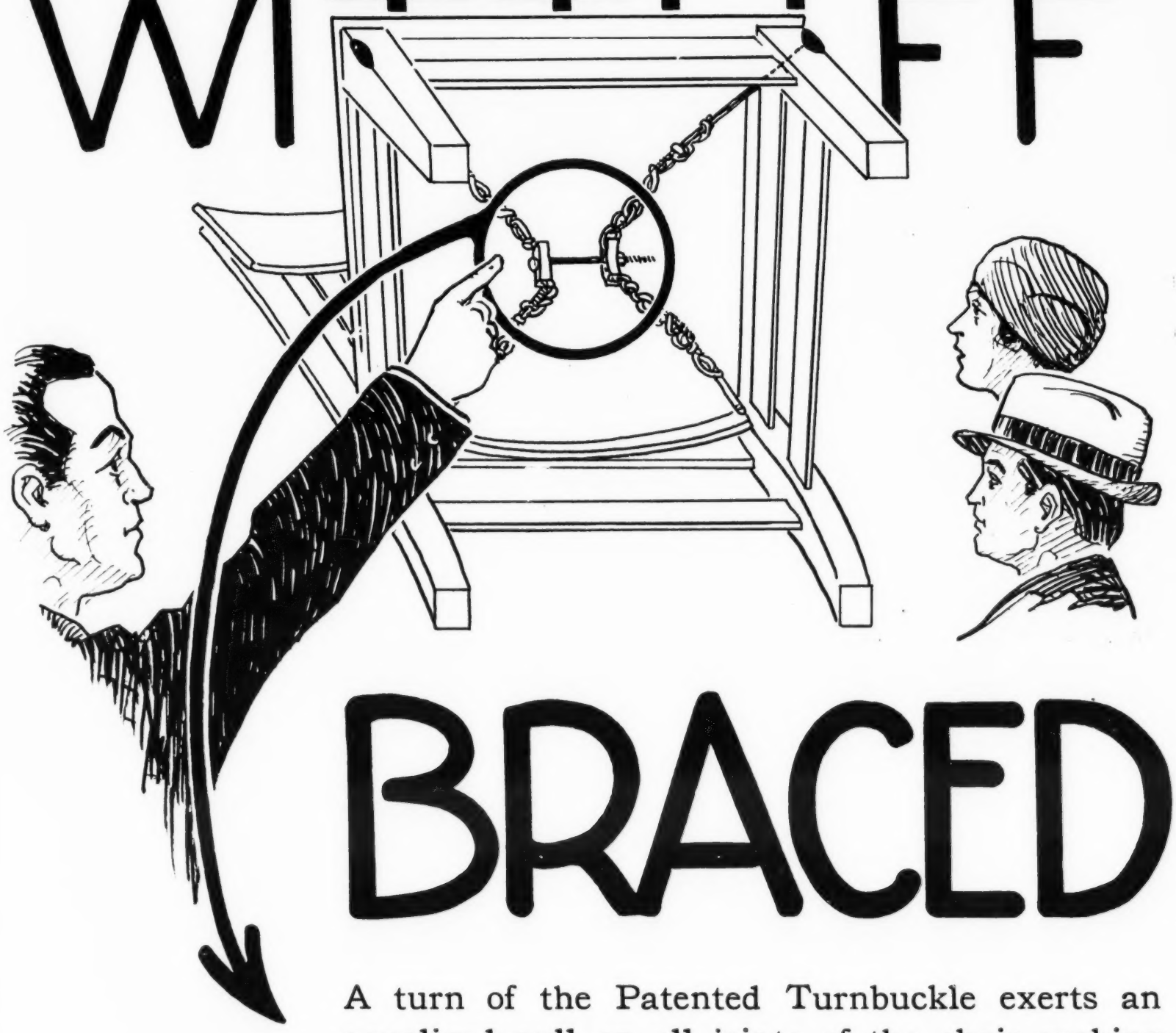
1. ***Is it easy to install?***
   Yes, just drive in three tacks.
2. ***Will it fit our desks?***
   Yes, it fits desks of any size. (Made in two sizes—Sr., Jr.)
3. ***Is it quiet?***
   Yes, the lid does not rattle nor creak.
4. ***Is it economical?***
   Yes, because of low purchase cost and unusually long life.
5. ***Has it any special advantages?***
   Yes, the tight-fitting lid keeps out dust and prevents evaporation. Pupils cannot tinker with it as easily as with the average desk well.

SEND FOR FREE SAMPLES TODAY

U. S. Inkwells are made and furnished with two size wells, one twice larger than the other. Write for samples of each so that you can see why it is much worth while to specify U. S. Inkwells—and determine which size best meets the needs of your school. You can get U. S. Inkwells from any school supply jobber or direct from our factory. Write today for prices and samples.

U. S. INKWELL COMPANY
406-20 S. W. 9th STREET DES MOINES, IOWA

WITTLIFF



BRACED

A turn of the Patented Turnbuckle exerts an equalized pull on all joints of the chair making it as sturdy as new to last forever.

When considering maintenance cost may we point out the possibilities of the Wittliff Chair Brace to prolong the life of New Chairs and revitalize the Old. They are simple to install at very small cost. It will pay to investigate. May we send you a trial brace at our expense?

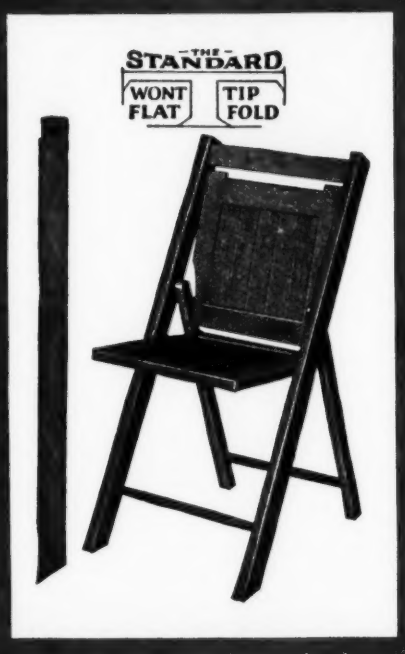
The Wittliff Furniture Brace Company

SUPERIOR AVENUE AT 30TH STREET CLEVELAND, OHIO.

When buying new chairs, don't overlook the fact that Wittliff Braced chairs mean low maintenance cost. The Tell City Chair Co., Tell City, Indiana — are exclusive producers of chairs with Wittliff braces.

healthy Chairs with Wittliff Braces

No. 44



No. 44 Swinging Slat Back

Many features developed throughout our years of experience as Folding Chair manufacturers have been incorporated in this model. It folds perfectly flat, is nontipping and will stand up nobly under severe use.

STANDARD

AS shown in the illustration to the left, the No. 44 Standard Folding Chair folds perfectly flat. Thus quite a number of chairs can be stacked where previously there were only a few. The resultant economy of space makes it advisable to buy chairs that stack flat.

However, if you desire a chair of finer appearance there is the No. 90 Folding Chair. These chairs can be used any place at any occasion and will enhance the appearance of the room wherever they are used. Although this model does not fold flat it stacks very compactly.

Besides these two there are twelve other distinctive styles of Standard Folding Chairs each answering its purpose nobly whatever the need it is put to.

We are anxious to send fully illustrated literature. Please write.

STANDARD MFG. CO.

Cambridge City, Indiana, U. S. A.

No. 90

No. 90 5-Ply Veneer

The folding chair shown above is the pride of the Standard Line. It is very comfortable, strong, neat in appearance and folds compact. The most critical buyer will find that the construction meets his strictest requirements.

A Lesson in Neatness—
More wastebaskets mean less work for the janitor! . . . And "more wastebaskets" mean more Vul-Cots —for Vul-Cot is the standard wastebasket in seventy-eight per cent of the schools of America . . . Guaranteed for five full years of service.
VUL-COT
-the national wastebasket

NATIONAL

DUSTLESS CRAYONS

are truly Crayons of Character

Free of grit from tip to tip NATIONAL CRAYONS respond perfectly to every stroke.

Being uniform in strength, every piece of NATIONAL CRAYON will withstand a firm grip of the fingers without danger of breaking or crumbling.

The dustless feature, combined with uniformity in all other respects, makes NATIONAL the ideal crayon for the classroom.

Your regular school supply dealer can serve you. If not, write direct.

THE NATIONAL CRAYON CO.
West Chester Pa.

Jones ~ The Standard Line

A Tablet Arm Chair that IS Different

No. 399

No child, uncomfortably seated, can be attentive or responsive. Not alone **health** but **accomplishment** as well is positively affected by seating conditions.

The new Jones Posture Tablet Arm Chair is the result of five years' development. Its shallow seat prevents cutting off circulation just above the knees, while the deep saddle of improved design encourages the occupant to sit well back so that the properly curved and properly placed back slats support the back at the lumbar curve, assuring CORRECT POSTURE.

The Tablet Arm is inclined, low enough at the elbow to prevent raising the shoulder and high enough at the front to prevent stooping. This feature of design is essential to CORRECT POSTURE.

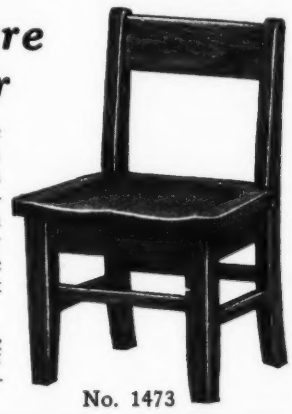
Beauty of design has not been overlooked and new features of construction have made it the most durable chair on the market.

Made of either plain or quartered oak with either quartered oak or hard maple tablet arm. All joints reinforced with dowels, corner blocks or screw brackets.

And a Correct Posture Kindergarten Chair

The Little Backs of small children are most susceptible to external pressure and influence. The Jones Number 1473 shown at the right is scientifically designed to permit the child to sit well back with both feet on the floor and with the back gently supported at the proper point. The saddle seat and correct back INSURE Correct Posture.

Kindergarten Chairs may be had in 10", 12", 14", 15", and 16" heights. Made of plain oak throughout and finished in Standard Brown lacquer.



No. 1473

You should have a copy of our new 1929 school catalog before you purchase for next fall. Just a card will bring one.

Standard School Equipment Co.
SILER CITY NORTH CAROLINA

Values ~ Above The Ordinary

MANUAL TRAINING BENCH No. 280

A GLANCE AT THIS NEW PATTERN will show that the combination of various sized drawers and cupboard makes an unusually practical bench. Notice, especially, the small drawer which is intended to hold nails, screws, small tools, etc., which so easily become misplaced when kept with the larger tools. Being able to immediately lay hands on these small but necessary items, will be the means of saving a great deal of time, thereby promoting efficiency. Also, notice the large cupboard, which will hold such tools and materials which cannot be kept in the general or three private drawers. Bench is equipped with our Abernathy Rapid Acting Roller Nut Vise No. 70D on front, adjustable stop and dog.

C. CHRISTIANSEN

Manfacturer of this line since 1898

2814-2842 West 26th St., Chicago, Ill.

IS YOURS A KEYLESS SCHOOL?

No more fussing with keys—no more keyboards—no keys to lose or misplace—no more duplicate master keys, and best of all, no more pilfering of student and school property.

The new Dudley Combination Cabinet Lock is just what progressive schools have been looking for to solve their key problem.

Some executives prefer the Dudley Combination Padlock for some of their departments. Remember, there is now a Dudley lock for every purpose. Insist on a complete Dudley installation for 100% protection and service.

Sample sent to any executive for free examination.

DUDLEY LOCK CORPORATION
DEPT. A-18
26 North Franklin Street, Chicago

. . . . free

from disrupting troubles, adjustments, repairs, replacements!

ANGLE STEEL EQUIPMENT

WHEN your first investment is a final one—then you may be sure it is an economical, profitable investment. Such is "ANGLE STEEL." When you buy stools; tablet-arm chairs; posture chairs; in short, any seating equipment of permanence — a life-time investment—then you may be safe in specifying ANGLE STEEL Equipment.

Day-in-and-day-out service with no "time out" is to be expected from "ANGLE STEEL." Each number is of ***known*** strength. Each carries its full share of work every day.

No. 276-LC-PVR
Posture Chair

Keep your money working at high efficiency by investing in this line of stools and chairs.

Write for Catalog "C-A"; a buying guide for school executives.

No. 1 Stool

No. 276 LC-PVR Posture Chair (Upper Right). This efficient yet restful chair is an ideal unit for school executives and teachers. Beautiful, rich, genuine leather on seat and back rest. Fully upholstered with the best of materials and workmanship. Rolled front style and full depth, front to back, for greatest comfort. Revolving; adjustable in height from 17" to 22". 2" diameter, noiseless ruboid casters. Seat adjusts forward and backward. Backrests tilt to any angle and adjust up and down. Sturdy steel frame finished in attractive olive green, black or red enamel. Leathers: red, blue, green or brown.

No. 1 Stool (Above). Useful yet moderately priced. 13½" wood seat, mahogany or oak finish. Heights 12, 14, 16, 18, 20, 22, 24, 26 inches. Angle steel legs, olive green lacquered.

No. 1 D. S. Stool (Right). A sturdy all-purpose stool. 13½" seat, hardwood. Mahogany or oak finish. Heights 24, 26, 28, 30, 32 inches. Angle steel legs, olive green lacquer finish.

No. 1
DS Stool

Ask for literature, prices and full data

ANGLE STEEL STOOL COMPANY
PLAINWELL MICHIGAN, U.S.A
Agents and Dealers in Principal Cities

Permanence in Steel
Angle Steel Equipment ON STEEL
ECONOMICAL · SANITARY · DURABLE

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ANGLE STEEL STOOL CO., Plainwell, Mich.
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Address.....
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DECIDE ON A DOUGHERTY CAFETERIA.

Penn Charter School - Philadelphia

In choosing kitchen equipment and serving supplies for the school . . . Decide on a Dougherty Cafeteria and save time, worry and money.

The name "Dougherty" is synonymous with fine quality and superior service, and it is a fact that Dougherty equipment and accessories are the first choice of many schools and colleges.

Let our engineers solve your cafeteria problems.

A complete catalog — interesting, illustrated and informative—will be sent—just make the request.

W. F. DOUGHERTY & SONS
Everything For The Kitchen
1009 ARCH ST. PHILADELPHIA

Palmer's
MULTI-SERVICE PRODUCTS

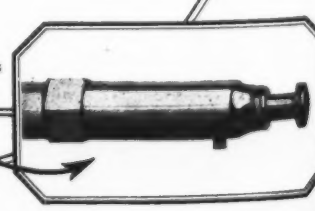
Palmer Liquid Soap Tank System.

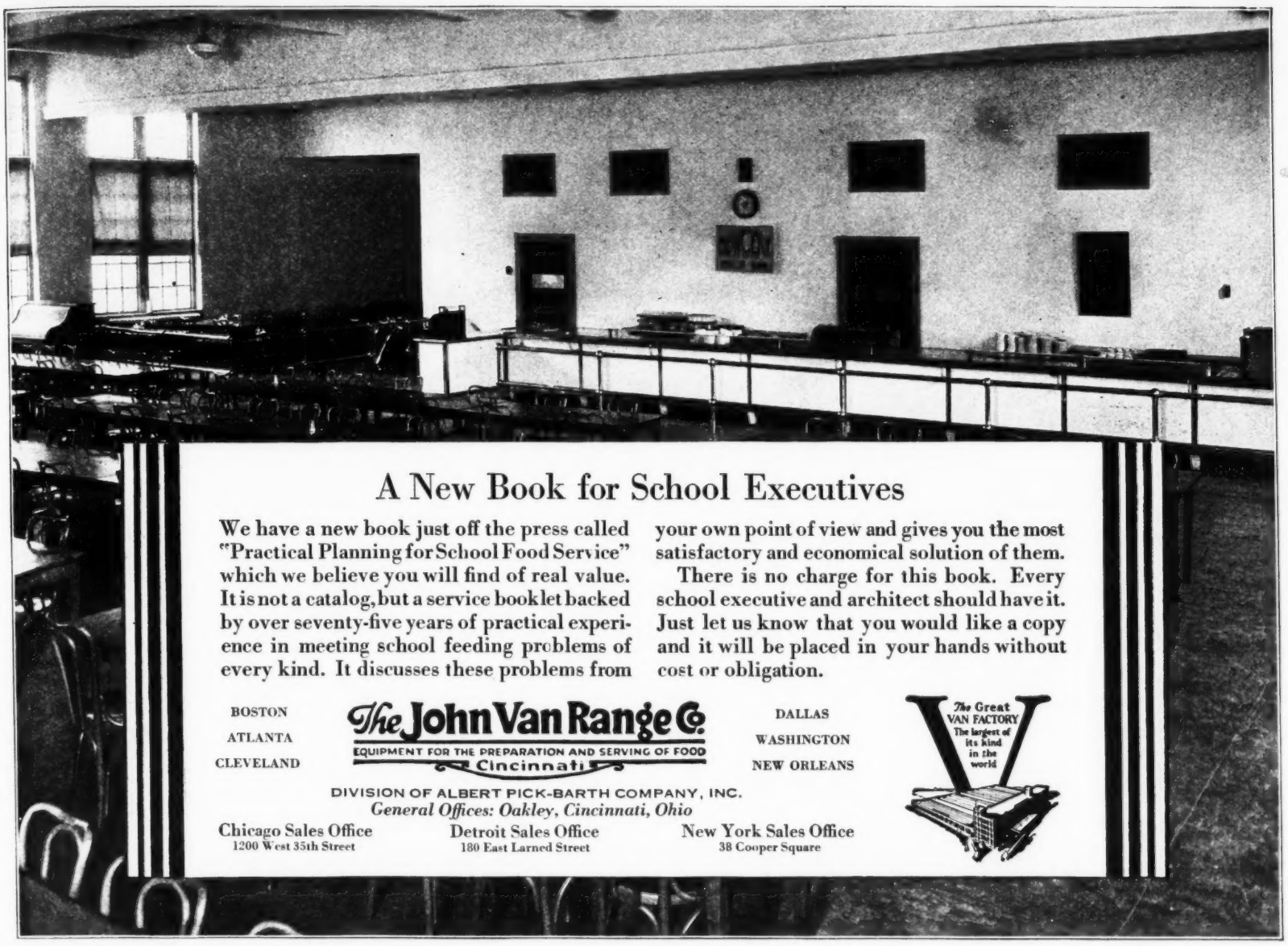
Most satisfactory, sanitary and economical soap service in School Wash Rooms containing two or more wash basins. Soap Valve service at each basin: as pictured. Can readily be installed in building already erected without defacing walls: as well as included in new building plans. Highly developed and perfectly practical in principle, material, construction, workmanship, finish AND SERVICE PERMANENCY. Write for fully descriptive literature.

Palmer PRODUCTS INC
WAUKESHA, WIS.
Adjacent to Milwaukee

Janitor Sanitary School Supplies

Individual Soap Dispensers
Improved Floor Brushes
Paper Towel Fixtures
Toilet Paper Fixtures
Floor Dressing
Vacuum Eraser Cleaners
Sanitary Dusters





A New Book for School Executives

We have a new book just off the press called "Practical Planning for School Food Service" which we believe you will find of real value. It is not a catalog, but a service booklet backed by over seventy-five years of practical experience in meeting school feeding problems of every kind. It discusses these problems from your own point of view and gives you the most satisfactory and economical solution of them.

There is no charge for this book. Every school executive and architect should have it. Just let us know that you would like a copy and it will be placed in your hands without cost or obligation.

BOSTON
ATLANTA
CLEVELAND

The John Van Range Co.
EQUIPMENT FOR THE PREPARATION AND SERVING OF FOOD
Cincinnati

DALLAS
WASHINGTON
NEW ORLEANS

The Great VAN FACTORY The largest of its kind in the world

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THE IDEAL FOLDING CHAIR

is comfortable in fact as well as theory.

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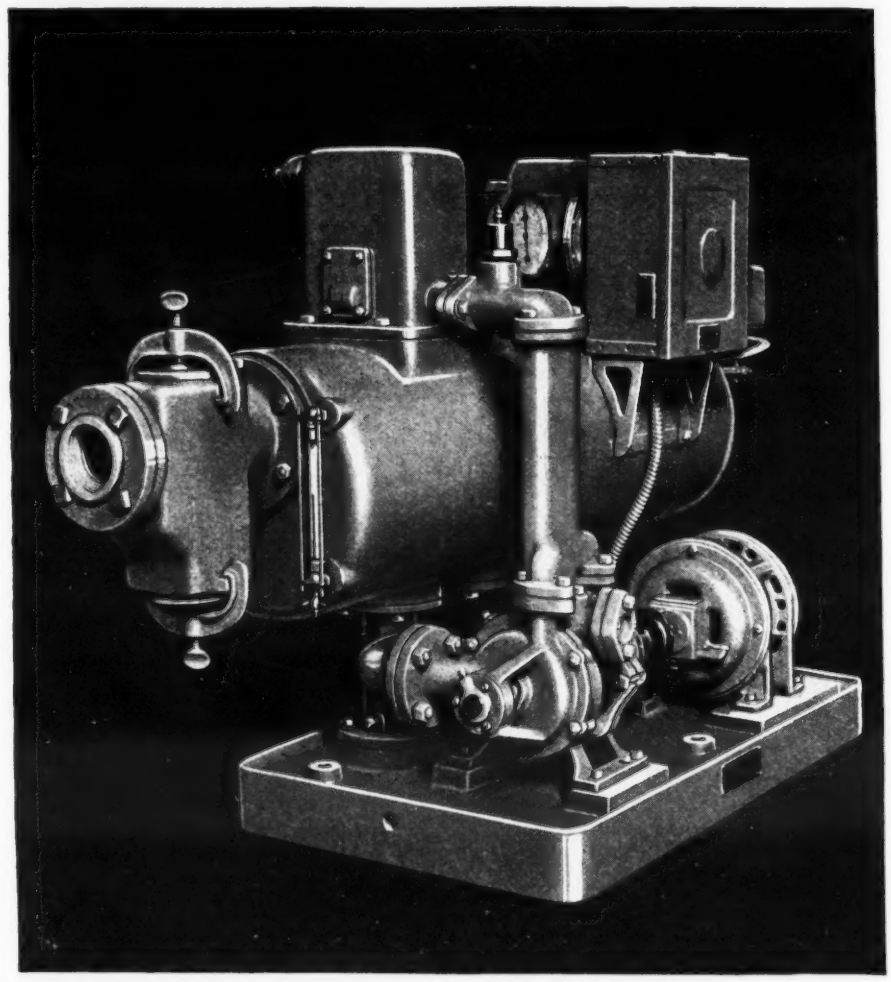

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VOL. 79
No. 2

THE AMERICAN School Board Journal

AUGUST,
1929

A Periodical of School Administration

Published on the first day of the month by
THE BRUCE PUBLISHING COMPANY
354 Milwaukee St., Milwaukee, Wis.

Eastern Office:
342 MADISON AVENUE
NEW YORK, N. Y.

Western Office:
53 W. JACKSON BLVD.
CHICAGO, ILL.

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JAMES M. STEVENS,
Superintendent of Schools,
Ocean City, New Jersey.

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Subscriptions—In the United States and possessions, $3.00 per year. In Canada $3.50. In foreign countries $4.00. Single copies, not more than three months old, 35 cents; more than three months old, 50 cents. Sample copies, 35 cents.

Discontinuance—Notice of discontinuance of subscriptions must reach the Publication Office in Milwaukee, at least fifteen days before date of expiration. Notice of changes of address should invariably include the old as well as the new address. Complaints of nonreceipt of subscribers' copies cannot be honored unless made within fifteen days after date of issue.

Editorial Material—Manuscripts and photographs bearing on school administration, superintendence, school architecture, and related topics are solicited, and will be paid for upon publication. Contributions should be mailed to Milwaukee direct, and should be accompanied by stamps for return, if unavailable. Open letters to the editor must in all cases contain the name and address of the writer, not necessarily for publication, but as evidence of good faith.

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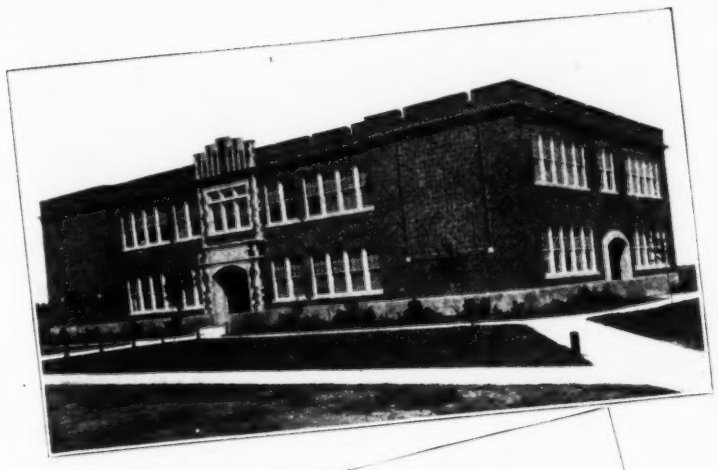

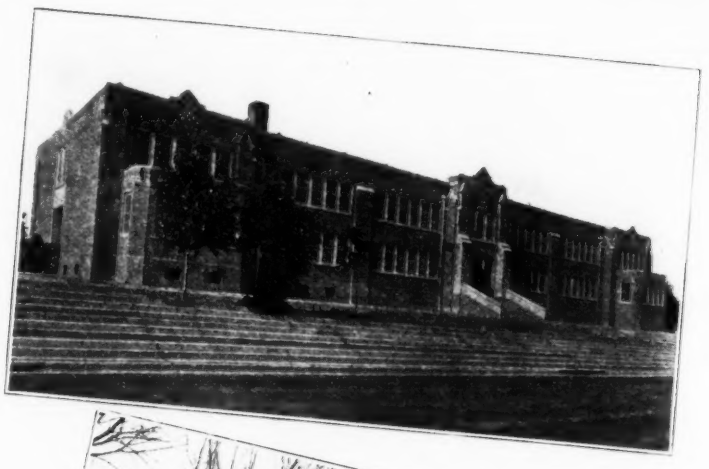

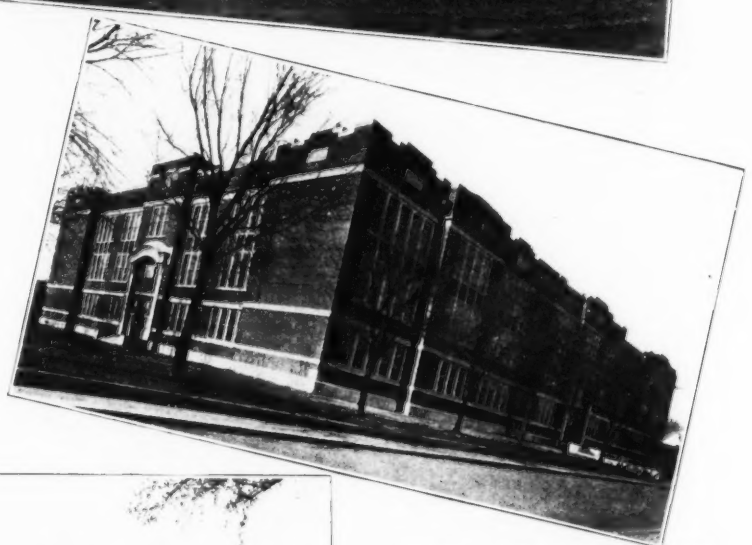

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Founded March, 1891, by WILLIAM GEORGE BRUCE

Volume 79, No. 2 AUGUST, 1929 Subscription, $3 the Year

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AMERICAN SCHOOL BOARD JOURNAL
Harold Heaton

"They Shall Not Pass!"

Your Job

An Article for the Young School Head

Russell S. Peterson

Business ability and personal qualities of leadership are often of more value to the school executive than is a doctor's gown. It is pretty safe to predict that a man with a comparatively limited knowledge of the science of education, if he has common sense and the ability to direct and lead, will make as good a superintendent as his brother who has a vast and ponderous knowledge of educational theory but lacks executive ability. Not that knowledge of educational science is a handicap to the schoolman. Far from it. Any man who wants to go very far in this profession of ours must attend school often and long. But we *are* contending that the man who wants to render the fullest possible service to his school system must pay as much attention to the development of his own personality and executive ability as he does to the contents of his college lecture notebooks.

The man who is making good at the job of running a school or a school system is succeeding at it because he is doing very much the same thing in very much the same way as the man who is doing a good job of running a bank, a hospital, a state, or a factory. He is a capable manager. He knows how to select competent coworkers who, besides being competent, fit into his organization. He has a personality that enthuses and inspires those who are associated with him. He represents his schools before the public in a way that breeds respect and confidence. He makes decisions quickly, and he sticks to them after he has made them. He has the ability to plan for what is going to happen a month, a year, or a decade from now.

Once in a great while we find a favorite of the gods who seems endowed at birth with an intuitive genius for leadership. Unfortunately such individuals are few. Most of us who want to be school executives find ourselves lacking some of the qualities that a successful leader must possess. Happily, however, there are only a few of us to whom the essential traits of an executive are denied if we are willing to work as hard for them as we are for other things in life that are worth while.

Analyzing Self and the Job

We need to analyze this executive job of ours, and we need to analyze ourselves. What qualities do outstanding school executives possess that we lack? What personal traits of leaders in other lines of activity in our community can we use to advantage in ours? What do these men do that we do not do, and how do they do it? These questions must be answered in as impersonal and as frank a way as is possible when we are studying ourselves.

An analysis of any executive's job will show that he must have the ability to pick the right kind of assistants. No leadership is strong enough to make an institution as efficient with a weak staff as it would be with a strong one. No amount of supervision and no quality of supervision can make a school as good a school with poor teachers as it would be with superior teachers.

The man who would aspire to a successful career as a superintendent must make a job analysis of the task of hiring teachers and other school employees. He must learn the technique of interviewing candidates, learn how to put the prospective teacher at ease, how to get the greatest amount of pertinent information out of the minutes that he spends with her. He must learn how to read between the lines of a recommendation. When does a recommendation mean what it says, and when doesn't it mean anything of the kind? He must learn to look for those apparently insignificant little details which while not visible on the surface may mean everything as far as the ultimate success of the teacher is concerned. The strain of teaching and the microscopic scrutiny to which the teacher is subjected by her clientele are so sure to search out any flaw in the teachers' character or professional equipment that the employing officer cannot afford to ignore any shadow. He must have imagination enough to foresee what the new teacher's reaction will be upon his teaching corps, upon the pupils, upon the school patrons, and what their reaction upon her will be. He must know the answers to the questions, "Is she a good teacher?" and "Will she fit?"

Leadership Needed Even by Efficient Teachers

Selecting the right people will not of itself insure an efficient organization. An aggregation of all-star football players without leadership and teamwork will generally be defeated by a team of mediocre individual players who work together. Likewise, no matter how brilliant the teachers may be, the school will not function as it should unless they are welded into a coherent group through capable leadership.

The teachers must be conscious of a definite school policy. In a well-organized school system, the executive has decided upon carefully planned course of action, and when a question comes to him he makes his decision consistent with the policies by which he steers his course. Such a superintendent has the confidence of his associates because they know what he will do in a given situation, and they also know that the decisions he makes will stick. As a result, the work of every individual in the organization is expedited, and fewer questions come to the superintendent for settlement. Those decisions that he has to make are made more easily than they would be if he had to make a new policy for every case that came to him.

It will make for efficiency if the superintendent establishes a settled routine for those matters that are best handled by routine. In these days of freedom in education, the word routine is rather taboo, but there are certain things that can be done more economically and better if they are disposed of according to a carefully planned and well administered routine than they would be if they were left to the often haphazard planning of each individual teacher. The distribution of supplies, the keeping of records, and the control of sanitary conditions in the school for instance are handled to better advantage if there is uniformity of procedure throughout the system as far as these matters are concerned. All such routine subjects need to be covered by carefully written instructions, a copy of which should be accessible to every individual concerned. Verbal directions are always open to misunderstanding and are more easily forgotten than that which is on record in black and white.

The Human Touch

Often a routine is developed to fit a certain situation, and later when the situation changes the routine is retained even though it no longer functions in the new state of affairs. For this reason all routine procedures need to be subjected to careful periodical scrutinies to make sure that they are expediting things, and have not degenerated into time-wasting and energy-choking red tape. Remember that red tape is nothing more nor less than a routine that has outlived its usefulness.

To attain its greatest possible level of achievement the school system must be more than a smooth-running machine. It must be that, but it needs in addition a warm personal touch. Machines made of steel, glass, and rubber can be manipulated successfully by a cold, aloof, uninspiring man, but not machines whose components are sensitive, red-blooded human beings.

The school executive who gets the most wholehearted cooperation from his teachers, pupils, and patrons is generally the one who recognizes the fact that they are human beings. He takes a genuine personal interest in them. He is friendly, and he does not consider it a waste of time to visit with folks even though the subject of conversation be trivial. He remembers names, faces, and little personal incidents that are connected with those names and faces. He is careful of his personal appearance, tactful, sincere, and cheerful.

Some of us are endowed to a greater degree than others with the qualities that make it easy for us to get along with people, but there are few of us who cannot develop these qualities of personality to a sufficient degree if we are willing to make the necessary effort. The amount of practice and time that most of us are willing to put on the lowering of our golf score if devoted to remembering names and faces would give even the most forgetful of us an adequate memory. Even those of us who are shy and introspective can make friends if we but make a determined effort to meet people. There is but one way to become friendly and that is to practice being friendly at every possible opportunity.

Backing Up the Genial Manner

With geniality, the superintendent must have persistence and forcefulness. He cannot afford to have the reputation of being merely a good fellow. Those things that he knows are right, he must cling to with bulldog tenacity. He must practice the art of influencing other people to do things that need to be done.

The ability to express himself gracefully and forcefully both orally and in print is a useful if not an indispensable asset to the school executive. He is expected to represent the school system before the public and to do so in a dignified way that will reflect credit alike upon him and the institution that he represents. He must have or develop the ability to set forth school objectives and school achievements before lunch clubs and other civic organizations. There never yet was a school that was over-sold to its public. The school head can no more overlook an opportunity to build good will for the schools than can any other business man afford to disregard the public.

Practice these things, my son, and learn what is in the books that the professors of educational administration advocate; then you will wake some morning and find yourself a superintendent of schools in more than name.

THE MEASUREMENT OF TEACHING EFFICIENCY BY MEANS OF STANDARDIZED TESTS

Since by efficiency we mean the power to achieve, to accomplish, to do, then efficiency in management and instruction will imply the getting of results in keeping with the expenditure of time, money, and energy. Before we can know whether every part of the school machinery in any particular school or school system is giving an educational account of itself, it will be necessary that certain definite accepted standards of achievement be set up, so that we can compare our own achievements with those that have been accepted as satisfactory. A measure of efficiency will indicate the degree to which results have approached or exceeded these established standards of achievement.

From this point of view the measurement of teaching efficiency will be possible to the extent that units of measure and standards of achievement for the various school activities have been established. The teacher cannot be certain of the soundness of her methods of work, unless there is some measure of the results of her instruction, which will indicate whether sufficient progress has been made from month to month, term to term, and grade to grade.—Albion U. Jenkins.

The Master Teacher and the Supervisor

David H. Pierce, Ph.D., New York University, A. Warren Schmidt, Ph.D., New York State Department of Education

The purpose of this article is to discuss the teacher's *job* in relation to the master teacher, the supervisor, his program of supervision, and the conditions surrounding it. It has often been said that the only difference between an astronomer and a bacteriologist is one of viewpoint. At present the supervisor often seeks the smaller instead of the larger aspects of the case. This article urges that the supervisor regard only the larger aspects of supervision.

In the past there has been too great a tendency to make the whole job of teaching a more or less automatic process, the teacher being a sort of manikin or Tony Sarg marionette. This is partially due to the manner in which teachers are frequently selected, on a "hit or miss" basis, with only a minimum of training required. When the novice enters the classroom, she proceeds to the best of her ability, but, since she has merely theoretical experience, she proceeds by the costly "trial and error" method. In this way wrong habits are acquired and the teacher suffers. The principal and the supervisors become alarmed. The teacher is rated as weak and at once an elaborate remedial program is set up. Visitations, demonstration lessons, prolonged conferences, and "standard tests" are called into service. All of these are "crutches" to assist the teacher who should never have been allowed to become habituated in these wrong practices which must now be eliminated. With the proposed "cadet" teacher system, explained in detail in this article, this trouble would not arise, as both "master" teacher and the new type of supervisor would be adequately equipped to guard against these dangers.

At present we often encounter supervisors who have been appointed on other bases than actual merit. Unfortunately politics, personal prejudices, and other foibles that humans are heir to, frequently influence the appointments more than merit in the form of superior qualities.

The Principal as a Supervisor

In the more formal type of organization for supervision the principal seldom assumes the role of supervisor. He is, however, the best qualified person for this job. In the first place, he is conveniently located; secondly he is responsible for the educational standards of his school. The authors hold that all supervision should be built around the principal; that, in place of the present system, the "master" teacher, under the principal's direct control, should guide the destinies of the weak or inexperienced teacher, and that those now in the position of supervisors should be advanced, if their actual qualifications warrant, to research workers in their particular fields, so that through them scientific and technical assistance will be available to the principal and his teachers.

In order for the principal to be able to handle this work two steps must be taken. First, the elimination of certain types of principals is desirable; they are a detriment to any school system under whatever plan it is operating. Among these types are: the "advertiser," who runs to the press, caters to patrons, struts as the chief performer in assemblies, and who, if he writes at all, "borrows" the work of his staff or dwells on platitudes; the "gum-shoer"; the "whispering campaigner," who collects information about his staff and who at best is little more than a professional spy; the "Pollyanna" type, who just walks around, smiles, and says "All's right with the world"; the "clerical" principal, who is so busy with reports that he is incapable of knowing anything about education as a whole or even as exemplified in his own school; and finally the incompetent but politically secure principal, who may not even possess the doubtful virtues of the preceding types. Little can be expected from these types in any kind of a program.

However the elimination of the preceding types will not be all that is necessary to put the school system on a progressive, forward-looking basis. The supervisory procedure herein proposed requires a principal who has adequate training, who is a worker, alert to his job and helpful, competent educationally, ethically minded, and respectful of the individual. When such a person has been secured, the second step must be to free the principal from routine matters, in order that he may have the time to devote himself to the duties that are now commonly classified as those of the supervisor. Just what the supervisors accomplish or hope to accomplish might be done by the principal with the approval of the central office, if the principal were well selected and competently trained and provided with adequate clerical assistance, and if the tools of research and special training in subjects were available to the principal and through him to the teacher. With this system both teacher and principal should be held strictly accountable for the final results.

Administrative Policies

Superior teaching is further dependent upon the administrative policy of the chief executive. A teacher's best work will be done in an atmosphere of security, assistance, and freedom, insured by fair policies of tenure, absence deductions, choice of method (which implies a responsibility for results) a reasonable load, and reward for classroom experimentation through professional and economic recognition.

Some Typical Faults In Supervision

In order to eradicate the faults of the present system they must first be squarely faced and brought out into the open. These faults are due in part to a misconception of the supervisor's job, rather than to a desire to be autocratic and dictatorial. For example, supervisors often have pet plans which they deliver to the teacher as fixed methods. There is little variation in a plan once it is made. The supervisor has not the same time to devote, or does not take the time to give a detailed study to the particular situation at hand. Plan "A" worked in cases that on the surface were similar, so why not here? The plan is dictated, the supervisor becomes the autocrat, benevolent or otherwise, and teaching goes on. When the present trend is toward freedom for pupils, creative control, and self expression, how can a teacher who has little or no use for resourcefulness and originality, and no real working of her own personality be logically present in the modern schoolroom?

Often supervisors visit classrooms on schedule, announced or otherwise, casually or intensely, secretive with pad and pencil, or blatantly on a "play day." They come for a few minutes once a year or "park" with the "weak" and "best" teachers. On the basis of such visits the year's work of the teacher is rated, either alone by her visitor, or in conjunction with other officers no better qualified. As a result of visits from supervisors of these types, fear is frequently a dominating factor in the regard for the supervisor by the teacher. Often there is an estrangement between principal, teacher, and supervisor on account of the matter of recommendation for reappointment and increases, and conflict between the field administration and technical aid. This comes about through the heavy machinery of organization, slow operation, and inability to discriminate particular needs.

Teachers rightly question the ability of supervisors when they feel in them a lack of understanding of their problems and an inability to judge or advise. Nor can a teacher be expected to submit cheerfully to inspections which result in much adverse criticism and little commendation.

The Supervisor and Favorites

One teacher sees others advance in rating through catering to the personal foibles and eccentricities of the supervisor. Those who rate as "best" teachers according to the supervisor's records are frequently known as "favorites" among their co-workers; and accordingly jealousy, because of alleged partialities, breaks down the esprit de corps so essential to an effective school program.

Frequently compulsory meetings, conducted late afternoons and on Saturday mornings or before the first day in September, likewise cannot help but arouse a feeling of unfairness among classroom teachers. If, in addition, these meetings are protracted "show off" affairs, distaste becomes even more pronounced and the results even more dubious.

Supervisors are often called upon to perform many other duties in addition to supervision. They frequently select supplies and equipment, assist in planning buildings, select textbooks, develop courses of study, prepare exhibits, conduct demonstrations and carry on many such activities. These duties are performed with all degrees of proficiency. Good work is done by good supervisors in spite of the organization. Perhaps it is too much to expect one capable supervisor to perform well so wide a range of duties. At any rate out of the present programs of supervisors, difficulties are constantly arising.

The teacher has a task which requires help. She should not be expected to carry additional duties except as they efficiently aid in the task she is assigned to perform. Extra duties should be regarded as part of the load, so stated and so understood. If this is not the case, and with the present system it rarely is, further assignments by supervisors generally result in overloading. For example, a given number of posters are to be completed on a fixed date; pupils are to gain a certain amount of progress in a given subject, irrespective of their other subjects; a spelling campaign is pushed for a state or national record at the expense of the rest of the program which must in some way be maintained if the class is to be up to grade at the end of the term. Under the proposed system this would not occur as, instead of several supervisors, one for each subject, the principal would supervise the entire situation, getting what technical aid he needed from the research department of specialists maintained at the central office for this special purpose.

A General Upset

At present in many schools it is true that the arrival of the supervisor is a signal for a general upset of work. Operating schedules are abandoned, teachers readjust as best they can. The supervisor, intent upon his special field of endeavor, visualizes the entire school system set up in relation to his standards of special work. He is quite likely to fail to note the differences in needs, capacities by schools or even by classrooms. Lack of perspective causes the individual supervisor to build up his department until the organization becomes top-heavy. Textbooks are chosen for the teachers. In some cases detailed lessons plans are required. The extended reports frequently required are too detailed for general use and are annually buried in the files of the central office.

The illustrations just given are of the less desirable type of supervision. Here the supervisor stands in authority over the principal and teacher. He is in a position to dictate directly to the principal and the teacher. He is a line officer, with a free hand in any room in the system. His word is law and his recommendation final.

It is not claimed that good results cannot be obtained in such an organization. However, it is true, that the very existence of authority in the supervisor tends to minimize the results obtained by the most capable individuals. Teachers are inclined to follow directions because of actual or implied coercion and not because of the intrinsic merit of the recommendations. A beginning teacher will try to carry out the plans of her superiors without understanding them, much less approving them, while the older teacher will regard the recommendations of the supervisor as fads and observe them only while under observation. The administrative and supervisory officers believe their plans are the right ones and should be followed by the teacher. The general esprit de corps in such cases is not likely to be one of mutual helpfulness.

Now since the present typical supervisory organization is inconsistent in principle, unsatisfactory in practice, and holds no promise of improvement, it logically follows that field supervision should be built around the principal who is always held responsible for final results.

The proposed plan recognizes two principles: The first is that the principal is the head of his school in fact, and not merely the titular head, and as such is responsible to the superintendent alone for the work of his building. The second is that the supervisor is a staff officer, subject to call as a specialist in his field and capable of rendering scientific service when called upon to do so.

Supervision As Proposed

The most important work of the board of education is to select the superintendent as its chief executive officer and then to approve his appointments. Principals are field lieutenants of the superintendent and directly responsible to him for their separate school units. They are in a position to be intimately familiar with the work in the classrooms. They can understand the teachers' difficulties better than anyone else. They can observe the work of the teachers more frequently than a supervisor from the central office. They must cooperate with their teaching staff. They understand the conditions peculiar to their section of the city. They know their teachers intimately. They are responsible for the entire program of the school. They can utilize the best in each of their teachers.

When a principal recognizes a situation which he is not able to solve, either for lack of time, assistance, or technical training, he may call in the subject specialist to direct the necessary research and to make specific recommendations on the basis of an intensive study of the difficulty. Subject specialists or research experts as staff assistants of the superintendent are thus available to the principals and the teachers in the solution of field problems. In this way a principal may secure adequate information regarding the special subjects so that he can intelligently supervise these classes.

This arrangement affords the supervisor an opportunity to do his best work as subject specialist, unhampered by routine and petty jobs, political strategies, and minor administrative details. The supervisor becomes the professional leader and a research worker of first rank. His position enables him to be a real student. His emphasis is on preventive rather than corrective means. His work is creative. He must be in advance of those whom he would advise. He must keep pace with the level of the best achievement elsewhere. As a pioneer, he works intensively on a given situation and depends on the merits of his proposals to disseminate improvement throughout the system. He relies on excellence to bring voluntary support. This is the highest form of supervision.

Teacher Needs Apprentice Training

Today the normal school prepares the teacher somewhat after the fashion of the medical school or the law school, but the school system does not follow through to the same extent. There is no provision for apprentice training under the guidance of a master, as is the case of the law clerk or the hospital intern. From the first day in the service the young teacher is thrust into a classroom and forced to "go it alone." If she falters then aid is brought. This is a wasteful and haphazard system. Under the proposed system the teacher gets the initial training and supervision in service during the cadet period, along the lines of her originality, initiative, and resourcefulness, so that she will have a method of attack for problems sure to arise. She is placed under the guidance of a "master" teacher, where she at first only observes the practices and technics of one who is skilled. Gradually she takes on small tasks, a very minor role at first. Perhaps she may begin by assisting in the keeping of records, selecting materials and passing them out to the pupils. She may score tests and, in conference with the "master" teacher, may soon help in the planning of remedial measures. After considerable observation she may assist individual pupils in their problems and difficulties. Later she may be permitted to teach a lesson after careful planning with the assistance of her sponsor. When she has gained experience and confidence, the number of lessons may be increased under the watchful eye of someone who is skilled in the art and who carefully goes over each item of the recitation, kindly pointing out the things done well and the ones that should not be repeated. The "master" teacher does in an intensive way with a single cadet what many good supervisors now try to do with young teachers after wrong habits have been firmly fixed. Finally after months of such intensive guidance the cadet may be given full charge of a classroom, while the "master" teacher exercises an interested oversight, at the same time

(Concluded on Page 126)

Comparison of Salaries of City School Superintendents, 1913, 1921, and 1928-1929

Bertha Y. Hebb

The table presented below gives the salaries of superintendents of schools in 58 cities having a population of 100,000 and over for the years 1913 and 1928–29, and the salaries of superintendents of 56 cities for the year 1921.

As may be seen upon examining the columns of figures from one period of time to the next the generosity of school boards of the different cities varies greatly, many having doubled the salaries of their superintendents since 1913, while others have given no promotions since that date.

The change in the rank of the cities with regard to the salaries paid the superintendents is of interest. In 1913, for instance, two of the cities upon the list ranked 21 with regard to salary, while in 1928–29 they rank 57 and 58 respectively. Upon the other hand, some cities that were near the foot of the class in 1913 have forged ahead and are now nearing the top of the 1928–29 schedule.

The most usual salary that is paid superintendents of schools at the present time, according to the statistics given below, is $10,000, 14 of 58 cities paying their superintendents this amount in 1928–29. The most usual salary paid in 1913 was $4,000, 12 of the 58 cities which reported for that year paying this amount; and the most usual salary paid in 1921 was $6,000, 12 of 56 cities paying this amount in 1921.

Rank		1913
1	Chicago	$10,000
1	Boston	10,000
1	New York	10,000
1	Cincinnati	10,000
5	Philadelphia	9,000
5	Pittsburgh	9,000
7	St. Louis	8,000
7	Detroit	8,000
9	Seattle	7,500
9	Buffalo	7,500
11	Newark, N. J.	7,000
12	Jersey City	6,500
13	Los Angeles	6,000
13	Denver	6,000
13	Washington	6,000
13	Cleveland	6,000
13	Milwaukee	6,000
18	Indianapolis	5,500
18	Minneapolis	5,500
20	Omaha	5,400
21	Birmingham	5,000
21	New Orleans	5,000
21	Baltimore	5,000
21	Cambridge	5,000
21	Springfield	5,000
21	St. Paul	5,000
21	Rochester	5,000
21	Dayton	5,000
21	Toledo	5,000
21	Providence	5,000
21	Louisville	5,000
32	Salt Lake City	4,800
33	New Haven	4,500
33	Spokane	4,500
35	Worcester	4,250
36	Bridgeport	4,100
37	Oakland	4,000
37	San Francisco	4,000
37	Des Moines	4,000
37	New Bedford	4,000
37	Grand Rapids	4,000
37	Syracuse	4,000
37	Columbus	4,000
37	Youngstown	4,000
37	Reading	4,000
37	Houston	4,000
37	Richmond	4,000
37	Akron	4,000
49	Atlanta	3,600
49	Paterson	3,600
49	Trenton	3,600
49	Nashville	3,600
49	San Antonio	3,600
54	Kansas City, Kans.	3,500
55	Lowell	3,300
56	Norfolk	3,250
57	Wilmington	3,000
57	Albany	3,000

Rank		1921
1	Chicago	$12,000
1	New York	12,000
1	Philadelphia	12,000
1	Pittsburgh	12,000
5	Jersey City	10,500
6	Oakland	10,000
6	Boston	10,000
6	Omaha	10,000
6	Newark	10,000
6	Buffalo	10,000
6	Cleveland	10,000
6	Seattle	10,000
13	Detroit	9,000
13	Youngstown	9,000
13	Milwaukee	9,000
13	Akron	9,000
17	Los Angeles	8,000
17	Denver	8,000
17	Indianapolis	8,000
17	Baltimore	8,000
17	Minneapolis	8,000
17	St. Louis	8,000
17	Rochester	8,000
24	Birmingham	7,500
24	Des Moines	7,500
24	Columbus	7,500
27	Trenton	7,000
28	Richmond	6,500
29	Toledo	6,240
30	Dayton	6,120
31	Washington	6,000
31	Bridgeport	6,000
31	Wilmington, Del.	6,000
31	Cambridge	6,000
31	Worcester	6,000
31	Paterson	6,000
31	Albany	6,000
31	Syracuse	6,000
31	Providence	6,000
31	Houston	6,000
31	San Antonio	6,000
31	Salt Lake City	6,000
43	Spokane	5,800
43	Springfield	5,800
45	Grand Rapids	5,500
45	New Bedford	5,500
47	New Haven	5,000
47	Atlanta	5,000
47	Kansas City, Kans.	5,000
47	Lowell	5,000
47	Norfolk	5,000
47	Louisville	5,000
47	St. Paul	5,000
54	Nashville	4,800
55	Reading, Pa.	4,700
56	San Francisco	4,000

Rank		[1]1928-29
1	New York	$25,000
2	Detroit	17,000
3	Chicago	15,000
3	Cleveland	15,000
3	Newark	15,000
3	Pittsburgh	15,000
7	Birmingham	12,000
7	Boston	12,000
7	Buffalo	12,000
7	Cincinnati	12,000
7	Grand Rapids	12,000
7	Los Angeles	12,000
7	Philadelphia	12,000
7	Rochester	12,000
15	Bridgeport	11,000
15	Houston	11,000
15	Oakland	11,000
15	Seattle	11,000
15	St. Louis	11,000
20	Jersey City	10,500
20	Toledo	10,500
22	Akron	10,000
22	Baltimore	10,000
22	Dayton	10,000
22	Denver	10,000
22	Des Moines	10,000
22	Milwaukee	10,000
22	Minneapolis	10,000
22	New Orleans	10,000
22	Omaha	10,000
22	San Francisco	10,000
22	Springfield (Mass.)	10,000
22	Trenton	10,000
22	Washington	10,000
22	Youngstown	10,000
36	Paterson	9,500
37	Indianapolis	9,000
37	Worcester	9,000
39	Salt Lake City	8,000
40	New Haven	7,875
41	Providence	7,800
42	Richmond	7,750
43	Cambridge	7,700
44	Albany	7,500
44	Atlanta	7,500
44	Columbus (Ohio)	7,500
44	San Antonio	7,500
44	Syracuse	7,500
49	Nashville	7,200
49	Reading	7,200
49	Spokane	7,200
52	Lowell	7,000
53	Kansas City (Kans.)	6,500
53	New Bedford	6,500
53	Wilmington	6,500
56	Norfolk	6,000
57	St. Paul	5,000
58	Louisville	5,000

[1]Statistics for 1928-29 compiled from the National Education Association's "Tabulations I-B. Salaries Paid School Administrative and Supervisory Officers, 1928-29."

The City Government and Its Control Over School Expenditures

Ralph Yakel, LL.B., Ph.D.

The legal principles to be discussed in this paper[1] are in brief:

I. The courts have generally upheld the power of the board of education to control the purposes for which school funds may be expended, even in fiscally dependent cities.

II. A school board is not subject to regulation by provisions in either a special or home-rule charter, when the same are in conflict with the general laws of the state controlling schools. Should the legislature desire to allow the city government power to control over school finances, it must definitely delegate such authority by general or special act.

III. ". . . From the very dawn of our liberties, the principle most unquestionable of all has been this: that the people shall vote the taxes they are to pay, or be permitted to choose representatives for that purpose."[2]

IV. The school system of a state is a matter of general concern as distinguished from a "municipal affair."

Educational literature has on record several studies and numerous discussions upon the relative fiscal rights of the city government and the board of education. The control of expenditures as exercised by control over income is of extreme importance and has been conducive to much serious thinking on the part of educational administrators. The evidence presented here will include decisions defining certain phases of this control.

Fiscal Control of School Expenditures by the City Government Conflict Recognized by the Courts

I. *The courts have generally upheld the power of the board of education to control the purposes for which school funds may be expended, even in fiscally dependent cities.*

The courts have recognized this conflict and a very comprehensive statement was made of the problem by Judge Davis of the Buffalo Division of the New York Appellate Court in 1922:

"It has already been recognized that the provisions of law governing the duties of boards of education and of municipal authorities are somewhat in conflict. It is difficult to see how it could be otherwise, when a separate corporate body is created as a department of the city and is entitled to demand and receive funds from moneys raised by taxation in the city, yet claiming the right to act independently of the legislative and administrative departments of government of the city. The municipal authorities would naturally seek to apply to this department of the city government those provisions of law contained in its charter and elsewhere applicable to other departments. No doubt, with this conflict in mind, if the municipal officers and the members of the board of education realized that they were engaged in a common purpose, to-wit, to expend moneys received from taxation in the most economical and efficient manner possible for the public welfare, they could meet in a spirit of conciliation and agree upon some policy that would accomplish the desired result without straining to assert and maintain abstract rights and prerogatives. In the experiences we have thus far had, no such spirit has been manifest."[3]

Power of City to Dictate Expenditure Program

In the case of Reif v. Schwab, supra, Judge Davis held that the city council "may in its discretion reduce the amount demanded by the estimate; but the reduction must be in gross amount. The detailed items are, I think, to give the council information and aid in determining the total amount to be appropriated. The reduction in items of salaries or expenditures made by the council are, I think, of no more effect than the suggestion that in its judgment such reductions are advisable. Its action may point out to the board the reasons for making the reduction from the total estimate and indicate the items least necessary for the proper and economical management of the schools.

"I think such changes are advisory only; and while entitled to great consideration as coming from the body in general control of the city government and particularly of its finances and taxation, are not controlling."

Another Buffalo case in the Erie County Supreme Court (1927) upheld the right of the board of education of the City of Buffalo to select and purchase a site for a school building.[4] So long as the board acted in the manner prescribed by law, the City of Buffalo, through its city council, had to pay the bill and had to raise the funds to pay for it even though the funds were not available at that particular time.

The case of Fleishmann v. Graves[5] was taken to the New York Court of Appeals in 1923, and the court held that the city council under the education law of New York state had power to determine whether or not expenditures are legal.

"The duty of the city officials under the education law and the charter of the City of Buffalo is: first, to appropriate money for educational purposes according to the proposed estimates readjusted by the city council in making up its budget for all departments of the city, so as to keep within the constitutional tax limitation. Second, to see that the moneys so raised and placed to the credit of the educational fund shall not be used for purposes other than those authorized by the education law. With the particular items going to make up the estimate, which includes salaries for teachers, employees, servants and other persons assisting in the administration of educational affairs, the city has no particular concern except that it may direct how funds are classified."

Such power given to the city auditor or comptroller to determine what constitutes an educational expenditure under the educational laws seems conducive to much legal conflict in New York state. This practice is essentially wrong in principle. Since the schools are state institutions it seems that their expenditures should not be subject to practically judicial supervision by a city ministerial officer. The numerous cases concerning the administration of expenditures arising in this jurisdiction is evidence that such authority is wrongly placed.

The New Jersey courts uphold the doctrine that the city council after making an appropriation has no power to dictate the distribution and disbursement of money, even though the budget was itemized and the appropriations were specific.[6]

The city council of Binghamton, New York, sought, in 1915, to investigate the affairs of the board of education under the general power given in the city charter to "regulate the powers and duties of any department and investigate all city officers and departments." The principle involved in this case was held by the court to be that the city has no power to investigate or supervise the affairs of the board of education where it cannot give constructive aid.

". . . It is a strong presumption that the power given to a municipality to investigate is ancillary only to the power to regulate. It is not probable that the common council has been given power to uncover a sore that it cannot heal. . . . To the extent to which the common council is authorized to regulate the powers and duties of the board of education it is clearly authorized to investigate and it will naturally follow that the limit of power to regulate would be the limit of the power to investigate. . . . Moreover, there are economic reasons which imperatively demand a complete separation between the educational and political departments of a city, as far as the regulation of the public schools is concerned. If the members of a board of education were subject at all times to examination and investigation by a political municipal body, it would seriously impair the usefulness of the board and materially interfere with the highest efficiency."[7]

The power of the city government to regulate expenditures has received several setbacks in New York City. In a recent case the board of estimate and apportionment was not allowed any directive power over the funds once they were appropriated to the board of education.[8] Said the court:

"'The board of estimate and apportionment cannot supersede the Education Law by tacking on to its appropriations for school purposes limitations upon the power of the board of education given it by the Education Law. The board of estimate may grant or refuse the appropriations, but once having made them, the Education Law enacts how they shall be used."

This Brennan case upheld the principles enunciated in the leading case in this field of law, that of Gunnison v. Board of Education:

"The city cannot rent, build, or buy a schoolhouse. It cannot employ or discharge a teacher, and has no power to contract with teachers with reference to their compensation. There is no contract or official relation, express or implied, between the teachers and the city. All this results from the settled policy of the state from an early date to divorce the business of public education from all other municipal interests or business and to take charge of it as its peculiar and separate function, through agents of its own selection, and immediately subject and responsive to its own control. . . . The only relation the city has to the subject of public education is as custodian and depositary of school funds, and its only duty with respect to that fund is to keep it safely and disburse the same according to the instructions of the board of education. The city, as trustee, has title to the money, but it is under the care, control, and administration of the boards of education."[9]

One of the clearest and most forceful opinions upon this matter of fiscal control was enunciated in Michigan in 1925. This opinion points out the ultimate outcome of control of school finances by a city fiscal body and an understanding of the information which is necessary to the formulation of a defensible program of financial policy. The court said:

"If the defendant is right, then the legislature must have intended, in effect, to take from the school board and give to the board of estimate the power to determine, from which no right of appeal or review is given, the length of the school year under the statute, the number and compensation of teachers, the fiscal plans and policies, and the character and quality of materials, supplies and equipment of the school district; for, if the board of estimate has power to say upon the estimate how much and for what purpose money may be raised, it is, by its absolute power

[1] Yakel, Ralph, *The Legal Control of the Administration of Public School Expenditures*, Bureau of Publications, Teachers College, Columbia University, 1929.

[2] Judge Cooley in opinion rendered in case of People ex rel. Park Commissioner v. Common Council, Detroit, 28 Mich. 228, 15 A. M. Rep. 202 (1873).

[3] Rief v. Schwab, 204 N. Y. App. 50.

[4] Kane Cadillac Co. v. City of Buffalo, 128 Misc. Rep. 835,221 N. Y. S. 17.

[5] Fleishmann v. Graves, 235 N. Y. S. 84, 138 N. E. 745 (1923).

[6] Townsend v. State Bd. of Ed. 68 N. J. L. 97, 95 A. 729 (1915).

[7] Miller v. Tayntor, 170 N. Y. App. 126, 155 N. Y. S. 746 (1915).

[8] Brennan v. Bd. of Ed. 245 N. Y. S. 8, 156 N. E. 78 (1927).

[9] Gunnison v. Bd. of Ed., 176 N. Y. 11, 68 N. E. 106 (1903).

of veto, virtually the master of the plaintiff district.

"This was not intended. If it were, we might expect to find a clear legislative expression to that effect. The statute makes no provision for supplying the board of estimates with facts, data, statistics, reports, etc., so that an intelligent judgment on the matter might be passed, nor does it require the school board to exhibit its affairs, its needs, its problems to the board of estimates. It was the intent of the Constitution to separate the school organization from the general municipal government, and to turn the whole subject over to the legislature. . . .

"So long as the board of education stayed within the tax limit and within the law, as it did, it was answerable to no one, except the electors of the district."[10]

The above decision sounds as if a professional school administrator had written it.

The City Government and Control of Salaries of School Employees

The statutes in many states and the great weight of legal opinion places the control of salaries of employees of schools in the board of education. Many states are reserving as a state right the power to exercise certain controls over salaries paid to teachers.

Even in fiscally dependent cities, the courts have been emphatic in maintaining that the city shall not control the salaries of the teachers. One of the leading cases comes from Massachusetts, still one of the bulwarks in maintaining the dependence of school authorities upon the city for its finances.[11] In this case the budget as submitted by the board of education carried an increase in salaries for teachers. The mayor refused to approve the budget and submitted a reduced budget to the council. The city council dodged the issue by failing to take action within the time provided by statute, and the reduced budget was ipso facto adopted. However, the board then finding itself with a reduced income planned certain changes in the estimate. It wished to pay the teachers the increases, and in order to get the money to do this it eliminated summer schools, kindergartens, and curtailed certain other expenses. The question came up to the court as to whether or not this change in the budget as made by the school committee was legal. The court held:

"The school committee is an independent body, intrusted by the law with certain broad powers, important duties and large discretion. The obligation to select and contract with teachers implies examination as to their fitness and of necessity carries with it the power to fix the compensation to be paid. It would be vain to impose upon the school committee responsibility for excellence of instruction to be afforded to pupils and to deprive them of the power to determine the salaries of teachers. There is much of self-sacrifice and devotion to the common welfare among teachers in the public schools. But, nevertheless, the character of service to be obtained depends to a considerable degree upon the compensation offered. The full and appropriate discharge of their duties by school committees requires ample power to select competent teachers. . . . In the exercise of their honest judgment on the question of salaries for teachers the school committee is not restricted to the amounts appropriated. . . . The only supervision which the city council or towns can exercise over the school committee is to vote to close the schools after they have been kept open the time specified by the law."

This decision was upheld in 1925 and strengthened when the court[12] dictated that the city council must provide salaries as estimated in the budget voted by the school committee.

In the State of New York, the city governments have in recent years been having trouble in retaining power over teachers' and supervisors' salaries. The case of Fuhrmann v. Graves[13] in Buffalo (1923) had as its principal issue the proper residuum of the power to fix the salary of the superintendent of schools. The city council attempted to limit the power of the board by refusing to grant the appropriation to the amount asked by the board for that purpose. Judge McLaughlin said:

"The intent of the legislature in enacting the education law is clear. It imposes on boards of education as separate corporate bodies, representing the state, the responsibility of furnishing an efficient system of public education and in this respect are not subject to or controlled by the city authorities. . . . As to when, how and where the amounts placed at their disposal shall be disbursed, each board exercises an independent judgment uncontrolled by and in no respect influenced by city authorities."

The same principle was upheld recently in Michigan as follows:

"If the board of estimate may cut the salary of the superintendent of schools $500, as it did in the instant case, it may cut it in halves and prevent the hiring of a competent man because of the inadequacy of the salary. This also applies to other items which were reduced."[14]

However, by express charter provision,[15] the board of aldermen in New York City fix the salaries of janitors in public schools,[16] copyists in board of education offices,[17] and the salaries of all other employees of the board of education except day laborers, teachers, and members of the supervisory staff.[18]

Control by City Over Other Expenditures

A Rhode Island town may not require that money raised by it shall be applied to any special purpose.[19] The appropriation of school money rests exclusively with the school board.[20] Vermont, in the case of Farmer v. Haley (1926) rules that the right to purchase supplies rests with the board of education, but that the repairing of school buildings shall be done by the town manager and paid for by the board of education.[21] This case also held that the right to employ janitors was a power of the board of education.

A city ordinance which fixes a minimum wage scale of 75 cents per hour for laborers working upon all public works does not apply to the erection of schoolhouses, even though contracts for school buildings run in the name of the city and are countersigned by the mayor and approved by the city attorney.[22] The above case also gave the board the exclusive power to select sites and erect school buildings.

The principle seems fairly well established in New York, New Jersey, and Massachusetts that the control of expenditures of school districts by the city government is limited to a control of the total amount to be expended and does not extend to control of the purposes for which money is to be expended. As these states are among the principal bulwarks of city control over school fiscal powers, this limitation of the city's power is important.

The City Charter and Its Power to Control Expenditures

II. *A school board is not subject to regulation by provisions in either a special or home-rule charter, when the same are in conflict with the general laws of the state controlling schools. Should the legislature desire to allow the city government power of control over school finances, it must definitely delegate such authority by general or special act.*

The general state laws relating to educational organization and procedure have been held superior to both special and home-rule charters. This principle was upheld in the case of Brennan v. Board of Education, supra, and also in the case of Fuhrmann v. Graves.[23]

The San Francisco board of education is not subject to charter regulations by the city, but to the state statutes, at least in those matters where the state speaks or has not definitely given the city power to regulate. Such regulations even then must not be in conflict with the general state laws.[24]

The City of Port Huron, Michigan, sought, under a statute permitting the city to adopt its own charter, to establish and enforce a charter provision whereby the city council should have complete authority over the finances of the schools. The court held that the city could not exercise any such power.[25] The above case was upheld in principle again in Michigan (1925) in the case of Union School District v. Council, City Saginaw, supra.

The Tax Levy

III. *"From the very dawn of our liberties, the principle most unquestionable of all has been this: that the people shall vote the taxes they are*

MR. PRUNTY ELECTED SUPERINTENDENT AT TULSA, OKLA.

Mr. Merle Prunty, formerly associate superintendent of schools at Tulsa, Okla., has been elected superintendent of schools, to succeed Mr. P. P. Claxton.

Mr. Prunty was educated in the schools of Kansas. He is a graduate of Kansas University and Chicago University, and has completed postgraduate work at Kansas Teachers College, Columbia University, and Tulsa University.

Mr. Prunty has had an extended teaching and administrative experience covering a period of nineteen years. He was a high-school principal in the schools of Kansas and in the Tulsa Central High School. He has taught in the summer courses of colleges and universities, and during the past four years has been a summer-school instructor at the Colorado Teachers' College.

MERLE PRUNTY
Superintendent of Schools,
Tulsa, Okla.

Mr. Prunty is a frequent contributor to the periodical literature on school subjects and has held a number of offices and assignments in the state and national educational associations.

Mr. Prunty is scholarly, a constant student of education, and is possessed of high ideals, so that he is well qualified to direct the school system of Tulsa.

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[10]Bd. of Ed., Saginaw, East Side, v. Board of Estimates. 230 Mich. 495, 203 N. W. 68 (1925).
[11]Leonard v. School Committee. Mass. 135 N. E. 459 (1922).
[12]Decatur et al. v. Peabody, 251 Mass. 82, 146 N. E. 360 (1925).
[13]Fuhrmann v. Graves, 235 N. Y. 77, 138 N. E. 743.
[14]Union School Dist. v. Council, City of Saginaw, 232 Mich. 639, 206 N. W. 573 (1925).
[15]Charter, Greater New York, Ash., p. 68, Sec. 56, Chap. I, as amended January, 1925.
[16]Mahoney v. Bd. of Ed., New York, 167 N. Y. S. 222, 179 App. Div. 782 (1917).
[17]Dobrovolney v. Prendergast, 219 N. Y. 280, 114 N. E. 436 (1916).
[18]Hogan v. City of New York, 137 App. Div. 255 (1910).
[19]Wheeler v. City of Alton, 68 N. H. 477, 38 A. 208 (1896).
[20]Bailey v. Duffy, (R. I.) 121 A. 129 (1923).
[21]Farmer v. Baley, Vt. 135, A. 12.
[22]Schmidt and Son, Inc. v. Milwaukee, 185 Wis. 119, 200 N. W. 678, (1924).
[23]Fuhrmann v. Graves, 235 N. Y. 77, 138 N. E. 743 (1923).
[24]Esberg v. Badaracco, 202 Cal. 110, 259 p. 730 (1927).
[25]McQueen v. City Commission, Port Huron, 194 Mich. 328, 160 N. W. 627 (1916).

to pay, or be permitted to choose representatives for that purpose."[26]—*Judge Cooley.*

The control of the amount of taxes to be raised has been one of the most thoroughly discussed problems in school administration. Such control is a most powerful regulator of control over expenditures. Without money to expend, the school board may be unable to put into effect educational policies which it may deem fundamental.

This study of the law has enabled the present investigator to focus more light upon a most important additional argument for the fiscal independence of school boards. The evidence is presented in as brief form as is consistent with its importance as a principle of democratic control.

"Perhaps no principle is more characteristic of our political system than the doctrine that there shall be no taxation without representation."[27]

"Accordingly, after the American Revolution, the states uniformly adopted constitutions which vested the taxing power primarily in legislative bodies."[28]

"As already observed, the right of taxation is vested in the people; but legislation is necessary to exercise the right of taxation. Under our form of government, this legislative power is vested (in the first instance) in the legislature of the state. The legislature, in the exercise of its sovereign power, may confer upon minor subdivisions of the state power to impose and levy local rates . . . on the principle that for local purposes the local authorities are representatives of the people."[29]

How carefully the courts guard this right is shown in this last case where the court refused to allow an appointed commission of three resident freeholders (even though the statute so directed the governor to appoint such a commission) to assess and levy taxes when the regular taxing authority neglected or refused to act. The principle involved was that the tax-levying power could not be delegated to any except duly elected representatives of the people. This case gives an excellent history of the fight for popular control over taxation and cites the controversy which existed in the New Jersey Colonial Assembly, 1748-1752. In this period the "Council" sought to amend an appropriation bill of the "Assembly" to which the latter body would not agree, holding the power to appropriate money belonged to them. The controversy lasting four years left the colonial government for this period without funds to pay its bills. Our early forefathers did not compromise on principles.

The principle that the power to tax cannot be delegated to appointed boards was enunciated in North Dakota in 1907:

"The power of the legislature to delegate the authority to levy taxes is generally held to be limited to boards or councils elected by the people, and it is not sanctioned when delegated to those appointed, when the appointment has not been assented to by a vote of the people. This limitation is recognized under the general principle that all powers of taxation are reposed in the people, and unless the people assent by vote to the appointment or election of the taxing authorities, such powers of taxation not thus assented to are repugnant to the Constitution and not to be upheld. The power to levy taxes is one of the most important legislative functions. If abused, it may amount to a practical confiscation of property. . . . A power so far-reaching should not be reposed in any one not directly responsible to the people. If appointed by the people and abuses follow, a remedy by removal is in their hands; otherwise, redress is so remote as to be without practical results."[30]

This case has been cited many times and has been upheld as late as 1928.[31]

[26]People ex rel. Park Commissioners, v. Common Council of Detroit, 26 Mich. 228, 15 AM. Rep. 202 (1873).
[27]Thomas v. Gay. 169 U. S. 264 (1898).
[28]Gray, J. M. Limitations on the Taxing Power, pp. 585-615.
[29]Inhabitants, Town of Bernard v. Allen et al. 61 N. J. L. 228, 38 A. 716 (1898).
[30]Vallelly et al, v. Board of Park Commissioners, 16 N. D. 25, 111 N. W. 615 (1907).
[31]State v. Curtis. (Mo.) 4 S. W. 2nd. 467.

The following case is not law:[32] it was obtained from the dissenting opinion of the seven judges of the Pennsylvania supreme court, but this opinion is regarded[33] as sounder law in principle than that of the majority of the court. It is cited much more often.

Judge Brown wrote this dissenting opinion concerning the power and right of an appointed board of education to levy taxes:

"These directors are not true representatives of the people. . . . The scheme is one of bald taxation without representation and strikes at the very root of a republican form of government, for taxes are a grant of the people and the grant must be by their immediate representatives. The people are not to be taxed except by their own consent or that of officers truly representing them."

Thus it is seen that the legal authorities, in what is regarded as sound law and political theory, state in no uncertain terms the principle of popular control over finances. The law will not generally uphold the right of appointed boards to levy taxes, maintaining that the people must have direct control over the officials which have the right to make a demand upon the public purse. Why then should the people release this power of control to a third party? It is maintained that the delegation of the power of making a tax levy or the approval of a tax levy to a city council or other fiscal body removes control farther from the people. Certainly, control is more direct and positive when exercised over a board of education, the sole duty of which is to administer the school policies and finances, than it would be over any other body charged with multiferious duties and responsibilities. Just how would the citizens of any fiscally dependent city go about the proposition of definitely expressing their disapproval of the policies and financial management of their city schools? Why should the people delegate authority to a fiscal body with but incidental power of redress when they may exercise direct control themselves upon definite issues?

Another argument for fiscal independence of school boards has not been urged to the extent which it seems to merit. Fiscal dependence tends to make school districts coterminous with the city boundary and thus deters and almost prevents an organization of school districts on bases other than those of present political subdivisions of governmental units. In this day when the slogan for equality of opportunity is leading us into new fields of thought, the location of the homes of pupils, transportation facilities, financial resources, ease and efficiency of administration, and other justifiable criteria should determine the size and nature of a school district rather than simply political boundaries. The growth of the county-unit organization in the several states is evidence of the soundness of this argument. The surveys made by Strayer and Engelhardt for Chattanooga, Tennessee, and Hamilton county, Tennessee, advocates a school district embracing the entire county as well as the city. The principal arguments are the ones mentioned above, namely, that such an organization, in view of such factors as those mentioned, will furnish to the children of that community the nearest possible approach to equality of opportunity.[34]

[32]Minsinger v. Rau, Pa. 84 A. 902 (1912).
[33]Harvard Law Review 26:257.

Schools Are Not Municipal Affairs

IV. *The school system of a state is a matter of general concern as distinguished from a "municipal affair."*

Certain of the critics in the field of municipal administration are making much of the argument that the city as well as the school district is an instrumentality of the state. Let a California Court make an added distinction.

"But with the school department we are confronted by different and controlling considerations of the law. The school system of the state is a matter of general concern as distinguished from a 'municipal affair,' as that term is considered in connection with charter cities. . . . By this article of the Constitution, the people of the state have made the school system a matter of state supervision and judicial declarations to the same effect are numerous."[35]

There is a difference between the relationship of the school district to the state and that of a city to the state. Have we a state system of cities? Is it the concern of the state that every city have an electric light plant? A trolley or bus system? Paved streets or sidewalks? It is true, however, that every state does have a state system of schools. It is the concern of the state that every school building be erected according to certain standards which insure the health and safety of the children. It is the business of the state that the children be taught by teachers

[34]Report of the Survey of Certain Aspects of the School System of Chattanooga and Hamilton county, Tennessee, Strayer, G. D., and Engelhardt, N. L., Directors.
[35]Esberg v. Badaracco, 202 Cal. 110, 239 P. 730 (1927).

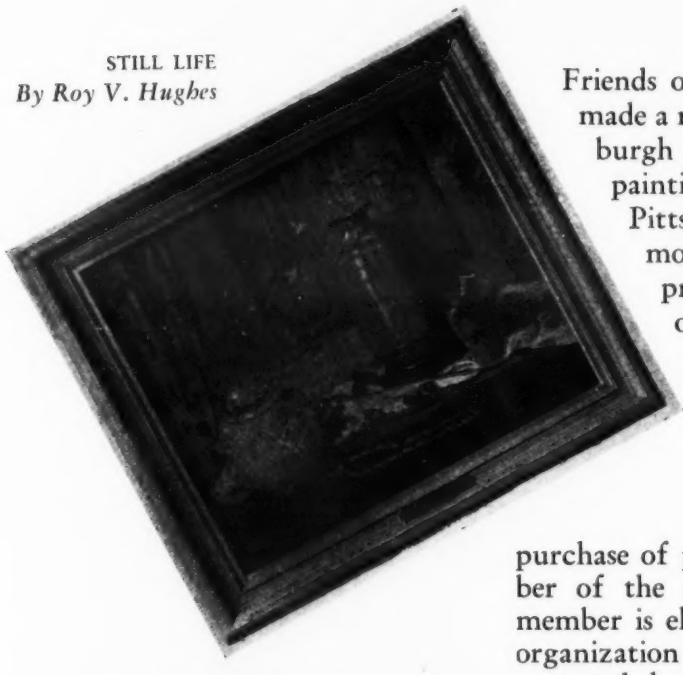
(Concluded on Page 126)

DOES FIREPROOFING PAY?

Between 300 and 350 high-school students escaped when fire of mysterious cause swept through the Owensmouth, Calif., high school, virtually destroying the entire structure. The loss was estimated at more than $250,000 in early reports. The students marched from the building at the first alarm, and not one was injured or burned. (Int. Newsreel Photo.)

Magnificent Art Gift to Pittsburgh Schools

ZINNIAS *By Cora Lee*



STILL LIFE
By Roy V. Hughes

THE One Hundred Friends of Pittsburgh Art have again made a magnificent gift to the Pittsburgh schools in the form of six paintings by local artists. The Pittsburgh schools now have more than 40 paintings presented by the Friends of Art and 12 paintings loaned by the city art museum. The Friends of Art assess themselves annually for the purchase of paintings, and whenever a member of the organization drops out another member is elected. The moving spirit in the organization is Mr. John L. Porter, who originated the idea and who acts as secretary.

STILL LIFE
By C. Jay Taylor

MEXICAN FORTUNE TELLER
By Lucy Drake Marlow

FARMER'S BOY *By George M. Ericson*

GARDEN FLOWERS
By Rachael McClelland Sutton

Analysis of Difficulties Between School Boards and Superintendents in Texas as Recognized by the Presidents of the Boards

John Guy Fowlkes, Professor of Education, University of Wisconsin, and
John Preston Buck, Superintendent of Schools, Sour Lake, Texas

How responsive is the superintendent of schools to suggestions for school improvement? How many typical difficulties arise from his failure to act? From his indecision? From his lack of administrative ability? Ninety-six school-board presidents answer these and other similar questions in this thought-provoking study.

—The Editor.

Concerning the Viewpoint of a Board Member

In the July, 1928, number of the SCHOOL BOARD JOURNAL, an article entitled "Difficulties Between Superintendents and Board of Education" by the authors was presented. Some evidence of the amount of interest shown in the article are the personal comments and communications together with the fact that a digest of the article was run by the Loyola Digest. In the September, 1928, number of the SCHOOL BOARD JOURNAL there appeared a discussion of the July article by a school-board member who for some reason or other preferred to remain incognito. The school-board member in a very excellent fashion reviews the material presented by the authors in the July issue of the JOURNAL, but indicates that some of the blame for error in school administration lies with the superintendent rather than with the board of education. The unknown board member raised several queries concerning points presented in the preceding article of July and expressed a wish that reactions from board members with respect to elements presented to the superintendents were available.

It happens that the reactions of a goodly number of presidents of boards of education representing the same schools as did the superintendents whose reactions were presented in the July article were available at the time the article was written. Unfortunately the authors have been unable until now to present the reactions of the board presidents. The board-member author of the September article raises several questions for answer. However, since the authors are anxious to deal with principles rather than with isolated opinions, the following study is presented as originally planned. It is hoped that the incognito board member will make himself known to the authors because it is their belief that after reading the following article, board members and superintendents alike will realize that a perfect case has not been set up for either superintendents or boards.

Method and Procedure of Study

This study is a companion study to the one made by the writers at an earlier date. Its purpose is to present testimony of presidents of boards of education as to their relationships to the superintendents in the respective communities involved.

A questionnaire was constructed, based upon the 35 difficulties reported by superintendents in relationship to the boards of education in the communities in which they work. It was thought that for every difficulty found by the superintendent there was either a real or potential difficulty from the standpoint of the boards of education. Therefore, a questionnaire was constructed containing the same number and kind of problems found in the study concerning difficulties recognized by the superintendent. The presidents of the boards of education were asked to classify these potential difficulties as major, minor, or no difficulty, in terms of the following definitions:

1. A major difficulty is one often met and when encountered seriously limits the effectiveness of school administration.

2. A minor difficulty is one often appearing but not serious, one not often appearing, but serious, or one often encountered, and not serious when met.

3. No difficulty in this study is a condition in no way limiting the effectiveness of school administration or so little as to be negligible.

The questionnaire follows:

1. Do you find when you delegate to the superintendent full responsibility for the recommendation of all teachers that you have difficulty in getting him to use this responsibility to the best advantage of the school?

Major difficulty. . . . .
Minor difficulty. . . . .
No difficulty. . . . . .

2. Do you find it difficult to get the superintendent to recommend salaries high enough to secure the best type of teachers?

3. Do you find it difficult to get the superintendent to assign teachers on the basis of the best teacher for each position, or is there evidence of the element of personal preference on the part of the superintendent?

4. Do you find it difficult to get the superintendent to base all transfer of teachers upon the best interests of the school and community?

5. Do you find it difficult to get the superintendent to recommend the dismissal of teachers or their not being reappointed on the basis of the merits of the case rather than as a matter of personal feelings?

6. Do you find it difficult to keep the superintendent from recommending teachers for reelection on a personal rather than a professional basis?

7. Do you find it difficult to get the superintendent to recommend raise of salaries of teachers on the basis of merit, such as outstanding work, etc.?

8. Do you find it difficult to get the superintendent to recommend to the board raise of salaries or bonuses for professional improvement, such as attending summer school, etc.?

9. Do you find it difficult to get the superintendent to handle all matters of discipline without these matters having to come to the board for final action?

10. Do you find it difficult to keep from handling some matters of complaint coming to the board from teachers because the superintendent has failed to give the matters a prompt hearing?

11. Do you find it difficult to get the superintendent to attend to all matters of complaint from pupils in a way that these matters do not have to come before the board?

12. Do you find it difficult to get the superintendent to attend to all matters of policy with sufficient promptness and effectiveness that teachers and principals have no disposition to bring these matters to the board?

13. Do you find it difficult to get the superintendent to bring matters which should have board action to the board before giving out his own judgment in the matter?

14. Do you find it difficult to get the superintendent to meet with you on regular dates?

15. Do you find it difficult to get certain matters such as matters of policy, dismissal of teachers, etc., attended to promptly because of the failure of the superintendent to report them promptly?

16. Do you find it difficult to get the superintendent to submit an annual budget based upon the needs of the respective departments of the school?

17. Do you find it difficult to get the superintendent to take the lead in making plans for the future, such as a building program, selection of equipment, salary schedule, etc.?

18. Do you find it difficult to get the superintendent to take the lead in visiting other schools with a view to local improvement?

19. Do you have difficulty in doing professional reading for the purpose of setting up higher standards for the schools because the superintendent has not suggested to the board what to read?

20. Do you have difficulty in getting the superintendent to point out to the board the advantages of taking the time and expenses for attending educational meetings?

21. Do you find it difficult to get the superintendent to recognize merit rather than display as a standard? For example, does the superintendent think more of service to the community than units of affiliation, etc.?

22. Do you find it difficult to get the superintendent to attend to all out of school activities, such as athletics, in such a way that the board does not have to give any time or attention to them?

23. Do you find it difficult to get the superintendent to suggest the kind of stand the board should take in the community for the schools when school policies are being attacked or adversely criticised?

24. Do you find it difficult to get the superintendent to present to the board all the facts with which you might arm the best citizens of the community against the retrenchers who frequently try to elect all members of the board?

25. Do you find it difficult to put over a constructive long-time program for the schools because of the frequent change of superintendents?

26. Do you find it difficult to get the superintendent to point out to the board what its share of responsibility is in the various school functions?

27. Do you have difficulty in getting the superintendent to present matters for attention at any board meeting far enough in advance that the board has had opportunity to study the matters thoroughly before action is taken?

28. Do you have difficulty in getting the superintendent to submit matters to the board systematically so that these matters may be attended to systematically?

29. Do you have difficulty in getting the superintendent to take an active stand with the board when the "drug store coach" and the "street sports" are trying to dictate the policies in athletics and other sports.

30. Do you find it difficult to give out to the community in a systematic way, information with regard to the schools, because the superintendent has not given you the facts?

31. Do you find it difficult to keep the superintendent from allowing his information to the board to degenerate into propaganda? For example, if the superintendent wants to get rid of a teacher, does he shape all his facts to that end rather than give the facts as they are?

32. Do you have difficulty in getting the superintendent to adjust his program to the adjusted budget when it is referred to him after the board has made its adjustments?

33. Do you have difficulty in getting the superintendent to set up a standardized accounting system for the school?

34. Do you have difficulty in getting the superintendent to make up and submit his budget early enough so that the board may use this as a basis for the tax levy?

35. Do you have difficulty in getting the superintendent to work out a system of unit costs in the school system so that the board may know what each unit of the school is costing?

The questionnaire was sent to the presidents of 200 school boards of Texas. The 200 school-board presidents represented the same schools as did the superintendents to whom questionnaires were sent for the earlier study. The number of presidents of boards of education who responded to the questionnaire was 96.

How Data Were Tabulated

Each questionnaire was checked and the total number of major, minor, and no difficulties were recorded for each board of education reporting. The communities which the presidents of these boards represent were divided into five groups as follows:

1. Group 1 consists of cities of 0 to 3,000 population. Thirty-six replies were received from this group.

2. Group 2 consists of cities of population 3,000 to 5,000. Twenty-eight replies were received from this group.

3. Group 3 consists of cities of population 5,000 to 10,000. Fourteen replies were received from this group.

4. Group 4 consists of cities of population 10,000 to 20,000. Nine replies were received from this group.

5. Group 5 consists of cities of population 20,000 and above. Nine replies were received from this group.

After all questionnaires had been checked and data recorded, the total number of boards of education in each group reporting major difficulty, minor difficulty, and no difficulty for each of the 35 difficulties were recorded. Inasmuch

RECOGNIZED DIFFICULTIES BETWEEN BOARDS OF EDUCATION AND SUPERINTENDENTS OF SCHOOLS FROM THE STANDPOINT OF SCHOOL-BOARD PRESIDENTS IN NINETY-SIX TEXAS CITIES

Difficulties	Total Major Difficulties Reported		Total Minor Difficulties Reported		Total No Difficulties Reported		Total Number of Board Presidents Reporting
	No.	%	No.	%	No.	%	
1. Do you find when you delegate to the superintendent full responsibility for the recommendation of all teachers that you have difficulty in getting him to use this responsibility to the best advantage of the school?	12	12.5	27	28.1	57	59.3	96
2. Do you find it difficult to get the superintendent to recommend salaries high enough to secure the highest type of teachers?	3	3.1	13	13.5	80	83.3	96
3. Do you find it difficult to get the superintendent to assign teachers on the basis of the best teachers for each position, or is there evidence of the element of personal preference on the part of the superintendent?	6	6.2	19	19.8	71	73.9	96
4. Do you find it difficult to get the superintendent to base all transfer of teachers upon the best interest of the school and community?	6	6.2	21	21.9	69	71.8	96
5. Do you find it difficult to get the superintendent to recommend the dismissal of teachers or their not being reappointed on the basis of the merits of the case rather than as a matter of personal feelings?	14	14.6	26	27.1	56	58.3	96
6. Do you find it difficult to keep the superintendent from recommending teachers for reappointment on a personal rather than a professional basis?	12	12.5	24	25.	60	62.5	96
7. Do you find it difficult to get the superintendent to recommend raise of salaries of teachers on the basis of merit, such as outstanding work, etc.?	2	2.	16	16.6	78	81.32	96
8. Do you find it difficult to get the superintendent to recommend to the board raise of salaries or bonuses for professional improvement, such as attending summer school, etc.?	3	3.1	10	10.4	83	86.5	96
9. Do you find it difficult to get the superintendent to handle all matters of discipline without these matters having to come to the board for final action?	11	11.4	21	21.9	64	66.7	96
10. Do you find it difficult to keep from handling some matters of complaint coming to the board from teachers because the superintendent has failed to give the matters a prompt hearing?	7	7.3	22	22.9	67	69.8	96
11. Do you find it difficult to get the superintendent to attend to all matters of complaint from pupils in a way that these matters do not have to come before the board?	4	4.16	23	23.9	69	72	96
12. Do you find it difficult to get the superintendent to attend to all matters of policy with sufficient promptness and effectiveness that teachers and principals have no disposition to bring these matters to the board?	9	9.3	29	30.2	58	60.4	96
13. Do you find it difficult to get the superintendent to bring all matters which should have board action to the board before giving out his own judgment in the matter?	6	6.2	23	23.9	67	69.8	96
14. Do you find it difficult to get the superintendent to meet you on regular dates?	8	8.33	8	8.33	80	83.3	96
15. Do you find it difficult to get certain matters, such as matters of policy, dismissal of teachers, etc., attended to promptly because of the failure of the superintendent to report them promptly?	9	9.3	14	14.6	73	76.03	96
16. Do you find it difficult to get the superintendent to submit an annual budget based upon the needs of the respective departments of the school?	9	9.3	16	16.6	71	74.03	96
17. Do you find it difficult to get the superintendent to take the lead in making plans for the future such as a building program, selection of equipment, salary schedule, etc.?	6	6.2	11	11.4	79	82.35	96
18. Do you find it difficult to get the superintendent to take the lead in visiting other schools with a view to local improvement?	20	20.8	25	26.	51	53.2	96
19. Do you have difficulty in doing professional reading for the purpose of setting up higher standards for the schools because the superintendent has not suggested to the board what to read?	25	26.	25	26.	46	48	96
20. Do you have difficulty in getting the superintendent to point out to the board the advantages of taking the time and expenses for attending educational meetings?	9	9.3	17	17.7	70	73	96
21. Do you find it difficult to get the superintendent to recognize merit rather than display as a standard? For example, does the superintendent think more of service to the community than units of affiliation, etc.?	10	10.4	12	12.5	74	77.1	96
22. Do you find it difficult to get the superintendent to attend to all out of school activities in such a way that the board does not have to give any time or attention to them?	8	8.3	7	7.3	81	84.3	96
23. Do you find it difficult to get the superintendent to suggest the kind of stand the board should take in the community for the schools when the schools and school policies are being attacked or adversely criticized?	7	7.3	16	16.6	73	75.	96
24. Do you find it difficult to get the superintendent to present to the board all the facts with which you might arm the best citizens of the community against the retrenchers who frequently try to elect all members of the board?	8	8.3	7	7.3	81	84.3	96
25. Do you find it difficult to put over a constructive long time program for the schools because of the frequent change of superintendents?	12	12.5	19	19.8	65	67.7	96
26. Do you find it difficult to get the superintendent to point out to the board what its share of responsibility is in the various functions?	10	10.4	18	18.7	68	70.9	96
27. Do you have difficulty in getting the superintendent to present matters for attention at any board meeting far enough in advance that the board has had opportunity to study the matters thoroughly before action is taken?	10	10.4	13	13.5	73	76.1	96
28. Do you have difficulty in getting the superintendent to submit matters to the board systematically so that these matters may be attended to systematically?	9	9.3	13	13.5	74	77.13	96
29. Do you have difficulty in getting the superintendent to take an active stand with the board when the "drug store coach" and the "street sports" are trying to dictate the policies in athletics and other sports?	5	5.2	9	9.37	82	85.43	96
30. Do you find it difficult to give out to the community in a systematic way information with regard to the schools, because the superintendent has not given you the facts?	6	6.25	16	16.6	74	77.1	96
31. Do you find it difficult to keep the superintendent from allowing his information to the board to degenerate into propaganda? For example, if the superintendent wants to get rid of a teacher, does he shape all his facts to that end rather than give the facts as they are?	9	9.3	23	23.9	64	66.7	96
32. Do you have difficulty in getting the superintendent to adjust his program to the adjusted budget when it is referred to him after the board has made its adjustments?	16	16.6	34	35.4	46	48	96
33. Do you have difficulty in getting the superintendent to set up a standarized accounting system for the school?	28	29.2	29	30.2	39	40.6	96
34. Do you have difficulty in getting the superintendent to make up and submit his budget early enough so that the board may use this as a basis for the tax levy?	25	26	25	26	46	48	96
35. Do you have difficulty in getting the superintendent to work out a system of unit costs in the school system so that the board may know what each unit of the school is costing?	31	32.3	36	37.4	29	30.2	96

as the number in each size group is too small to be significant, only the composite results are presented.

Summary of School Board Presidents' Reports

This study indicates that:

1. The question of authority granted to superintendents in the recommendation and placement of teachers is considered by the boards of education to be a much more serious problem than by the superintendents as was shown by the companion study. This would indicate that the superintendents have less difficulty in getting the boards of education to grant them such responsibilities than the boards of education do in getting superintendents to use these responsibilities properly.

2. The boards of education believe that their failure to improve themselves professionally has been due to a large extent to the failure of superintendents to advise them properly as to professional improvement.

3. The problems involved in budgetary procedure and cost accounting are among the most serious with which the boards of education have to deal. Furthermore, the implications are that these boards of education feel that their shortcomings along this line are due to the failure of the superintendents in the respective communities to educate them properly along the lines suggested.

4. While there are 35 problems vital enough to demand attention, there are a relatively small number of boards of education in any of the groups who are confronted with a large percentage of the difficulties. A further fact is that of those who do find the difficulties a much larger number find them to be minor rather than major.

5. A large number of boards report no difficulties at all in relationships to the superintendents in their communities. This would indicate that in many schools the boards of education feel quite satisfied with the work of the superintendent. This, however, need not be taken as evidence that in those schools the superintendents are perfect. Frequently, if the personal relationships between a board of education and its superintendent are good, the board reports no difficulty. In a number of marginal notations on the questionnaire, suggestions were made as follows: "Our superintendent is all right in every respect." "If a man was ever perfect, our superintendent is." In all such cases, the boards of education report no difficulties.

Recommendations

1. It is recommended that studies similar to this one and the one published in the July, 1928, issue of the SCHOOL BOARD JOURNAL, be made in all states.

2. State departments of education may very well use studies such as these in making recommendations concerning the administration of public education in local communities.

3. School superintendents should use data such as those suggested here as a basis for studies of relationships in their communities. It makes little difference what the opinion of the superintendent is if this opinion does not conform to the feelings of his board of education with reference to school problems. For example, one superintendent was very positive in his statements of the feeling of his board toward him. The questionnaire returned by the board president revealed the opposite opinion on the part of the board.

4. Colleges and universities in their courses in school administration should stress the importance of the superintendent's working out his relationships with the boards of education by starting with the points of view and opinions of the different board members as he finds them. If it is good psychology for a teacher to use the apperceptive basis in his dealings with his learners, it is likewise good psychology for the superintendent to use the same basis in dealing with the school board who looks to him for guidance and instruction.

5. It is very desirable that boards of education be acquainted with data such as these so that they may know what problems of professional relationships other boards are finding. It is the opinion of the writers that frequently a board of education may be having certain difficulties in their relationship to the superintendent without recognizing them. A study of this kind would acquaint boards of education with the problems with which they might be involved.

(Continued on Page 125)

Purchasing Coal for Schools

Quality and Other Factors That Affect Boiler Efficiency

R. C. Demary, Combustion Engineer, City of Dayton, Ohio

Coal, while not the largest item to be considered in the operation of our schools, is nevertheless an important one and in most cases receives less consideration than other articles of equal expense. A wise man once said, "All is not gold that glitters." Had he lived in this day and age he probably would have said, "All is not coal that is black."

The purchase of coal should be made only after a careful survey of the boiler plant has been made, and then only on the advice of an experienced combustion engineer. Few school boards, especially those in the smaller cities, villages, and townships feel that they can afford this service, and yet a dollar saved by them is of just as much importance as a dollar saved by the boards of the large cities.

It is not to be expected that the school board which is composed of business and professional men who do not and are not supposed to understand combustion and the coal trade with its various trade names and analyses, can solve the problem of selecting coal. They can, however, obtain professional advice, by hiring for a brief period a combustion engineer who will determine the condition of the boiler plant and recommend the types of fuels which will be most economical, considering all the elements involved.

The purpose of this article is to aid in the purchase and selection of suitable coal and to explain the advantages and disadvantages of certain coals, together with the best method of burning them and the care of the heating plant in general.

How Not to Buy

First, let us consider where and how school authorities purchase coal. In nearly every case bids are requested, but if the actual practice of buying is analyzed it will be found that school boards do one of five things: (1) They buy the coal which is lowest in first cost. (2) Or, quite against their will, they buy the coal which is highest in first cost. (3) Or, so little importance is attached to the fuel problem that they buy according to some local custom and are most careless about cost and results. (4) Or, "distress coal" socalled is the occasional source of supply. (5) Or, when really intelligent buying methods are practiced, a proximate analysis is obtained with the coal, and the greatest amount of heat value per dollar expended is obtained.

As a rule, the coal which is lowest in first cost is the lowest in quality, and unless the school firemen are high-class trained operators the schools will not get value received. When fuels of this kind are used, all evils of bad combustion, such as smoke, soot, high ash, corrosion, and a multitude of other ills are encountered. Taking this into consideration we are likely to find the cheaper coal much more expensive in the end. Special preparations are essential for the use of low-grade coals and these preparations are probably more expensive than the resulting savings.

Coal which is highest in first cost will not necessarily give the highest efficiency or the cheapest heat. The excessive cost may be due to certain qualities which do not affect the particular school plant where the coal is used. The coal may be very low in volatile matter, making it more suitable for domestic use. It may be extremely high in volatiles, making it valuable for a gas coal. The hydrogen content may be high, making it valuable for by-product use. Or a long freight haul may be the reason for the high cost. In any event the reason for the high cost is of no use to the schools.

Dangers of "Distress" Coal

The worst problem with which the school boards have to deal is the socalled "distress" coal. The seller has some high-grade steam coal, so the story goes, which remains unsold due to some plausible cause, and he is willing to sacrifice the price to save demurrage or for some other plausible reason. Usually this coal has been shunted about the country unable to find a buyer, and when sold the purchaser is more distressed than the coal dealer has been.

An interesting case illustrating the above was brought to the writer's attention last year. Two township school boards bought a carload of coal, dividing the cost between them. The price was ridiculously low for the quality claimed. When the heating season opened trouble developed. Upon examination I found that the coal had been mined at a small local mine which was operated only for short periods and at intervals because of the poor quality of its output. The school boards, had they so desired, could have purchased the same coal from the owners of the mine for $2.15 per ton less than the amount they did pay for it.

Another common cause of trouble in the purchase of coal results from the selection of coal bearing a high-sounding name which means nothing. Any cheap coal may be camouflaged by a fancy name.

The Right Basis of Coal Purchases

Many school boards who buy coal in large quantities do so as blindly as the small district boards which purchase only 40 or 50 tons yearly. The majority of large purchasers, however, who have a proper regard for economy, buy coal with two ideas in mind. First, they limit their specifications to coals which are adapted to the boilers installed in their school buildings. Second, they place their contracts for the coal which produces the greatest amount of heat per dollar expended. In other words, they judge the value of coal according to its suitability for their needs and on its B.T.U (British Thermal Unit) content or real heating value.

Fuels differ widely in nature and characteristics. Two lots of coal may have the same heat value, yet not be equally valuable to the purchaser. The coal must be adapted to the type of heating equipment in use. Low volatile coals and coke require a somewhat larger grate surface than high volatile coals, as they burn somewhat slower. High volatile coals may be burned in a boiler adapted for low volatile coals, but they will smoke badly because of the restricted combustion space, and the efficiency will be lower. While the type of furnace is important, in many cases we need not consider it unless we know the plant is designed to burn anthracite coal or coke, which is unlikely unless it is located in the hard-coal district.

The U. S. Bureau of Mines at Washington, D. C., publishes a bulletin on "Coals of the United States" giving the location of practically all coal mines and the proximate and ultimate analysis of the coals which they produce. The bulletin may be obtained free of charge. A copy should be in every school-board office where it may be consulted as the basis for comparison with the proximate analyses submitted by the bidders and sellers of coal.

The B. T. U. Basis

A British Thermal Unit is the standard heat unit used by combustion engineers and others in their measurement of heat and is the amount required to raise the temperature of one pound of water one degree, or from 63 F. to 64 F. to be exact.

The heat value of a coal is the number of heat units liberated by the perfect combustion of one pound of the fuel. In buying on the B.T.U. basis, however, where large quantities of coal are purchased and sampling is necessary, one drawback is encountered. It is a difficult matter to secure a suitable sample which will be representative of the entire amount delivered. The cost of analysis is considerable, and it is necessary to send samples of the coal, weighing a considerable amount, to the laboratory for determination.

Many cities have a school or university where coal analyses can be made and, if the quantity purchased amounts to several hundred tons, the trouble and expense are justified.

Any school board can, however, secure a certified proximate analysis of the coal to be purchased, and this should be demanded from the bidders so that comparisons can be made.

Coal Analysis

In dealing with coal analysis we have the proximate and ultimate types of analysis. The proximate analysis is the only one with which we are concerned. This analysis gives us the heat value, the amount of moisture, the amount of volatile matter, the fixed carbon, the sulphur, and the ash content. The ultimate analysis is intended to determine the chemical content of coal, giving the percentages of hydrogen, nitrogen, and other gases. It is of no practical value for the ordinary user of coal.

In the proximate analysis, the fixed carbon is the carbon remaining after the volatile matter is distilled off and is not the same as the total carbon found by the ultimate analysis. Volatile matter is the total combustible material, less the fixed carbon. It includes the gases, tars, oils, etc. Ash is the residue remaining after the moisture has been driven off and the fixed carbon consumed. Moisture is the loss in weight after the coal has been thoroughly dried at a given temperature and for a given length of time.

I have before me a letter from a large coal mining company giving a certified proximate analysis of a coal mined in Pennsylvania. This analysis will serve as an illustration:

Content	*Per Cent*
Moisture	0.57
Volatile matter	17.00
Fixed carbon	77.52
Ash	4.91
Total	100.00

Sulphur, 0.55
B.T.U., 15,060

This analysis is unusually good. The low percentage of volatile matter shows that the coal is smokeless (all coals containing less than 21 per cent volatile matter are considered smokeless by the smoke inspectors' association.) The fixed carbon is high, showing a large amount of heat. The ash is low and the moisture is very low. Ash and moisture, it must be remembered, are substances from which no heat is derived, yet we pay full coal prices for them.

The moisture in a coal must be evaporated and and to do so requires heat. The heat so used cannot be used to heat the water from which we derive our steam or hot air, as the case may be. This being the case, moisture has a double effect.

Recently a large coal dealer wanted to secure a school-board contract for school boilers where a smokeless coal was required because of numerous complaints from the neighbors. He submitted a proximate analysis which was as follows:

Constituents	*Percentage*
Volatile matter	26.00
Moisture	2.00
Ash	5.89
Fixed carbon	66.11
Total	100.00

Sulphur, 1.55
B.T.U., 14,200

The high volatile content of this coal would make it very smoky, just what the school board was trying to get away from. Both the ash and

moisture were high and while the price quoted was fair, it was not a coal suitable for their use.

The Effect of Impurities

The size of the coal bill depends on the amount of impurities and on the heat present in each ton. These impurities can be determined from the proximate analysis which should be insisted upon with each coal contract. If a coal contains a total of 200 per cent impurities, each ton will contain only 1,600 effective pounds of coal. If, on the other hand, the coal contains 8 per cent of impurities, then each ton will contain 1,840 pounds of real coal. If a school purchases 100 tons of the first mentioned grade of coal, it will receive only 80 tons of actual coal, while if the second grade is bought 92 tons will be received. The difference of 12 tons is quite an item.

This difference charged to impurities in the two coals is not the entire story. Each 4 per cent of moisture requires 1 per cent of fuel to evaporate it. Each 4 per cent of moisture displaces 4 per cent of actual coal in the weight. The consumption of 1 per cent for evaporation added to 4 per cent moisture means a direct loss of 5 per cent.

Sulphur causes clinkers, which means frequent shaking of the fire and in turn a loss of coal into the ash pit. Each 1 per cent of sulphur content is figured as a 2 per cent waste, even though some of the sulphur is burnable.

The ash not only displaces its equivalent of coal, but costs real money to handle.

The Cost of Impurities

In figuring the cost of impurities, the combustion engineer figures not only the cost of the equivalent amount of coal represented, but he also considers other expenses directly chargeable to the impurities. It is not customary to charge reduced boiler efficiency, as the variation in different coals is not sufficient to effect this appreciably.

As stated above, the cost of moisture is calculated on the basis that 1 per cent moisture displaces 1 per cent of coal and that it requires 1 per cent of coal to evaporate each 4 per cent of moisture. To simplify the problem let us assume that the coal costs $1 per ton, the firing costs $1 per ton, and the ash handling the same. On this assumption the loss through 1 per cent of moisture would, therefore, be 1 cent. Evaporating the moisture would cost ¼ of a cent. Firing this 1¼ per cent would cost 1¼ cents, or we would have a total cost of 2½ cents for each one per cent of moisture. The cost for any other percentage of moisture in coal bought at more than $1 per ton, can readily be figured from the above.

For estimating the sulphur cost, let us assume the same coal. One per cent of sulphur displaces 1 per cent of coal and costs 1 cent. Sulphur wastes 1 per cent of coal throught clinkers, which costs 1 cent, or a total of 2 certs. The cost of firing this 2 per cent of sulphur and coal is 2 cents. The 1 per cent of coal wasted in the ash pit will appear as 1 per cent ash. Half the sulphur is volatile, leaving ½ per cent ash. The cost of handling the 1½ per cent ash is then 1½ cents. The total loss is, therefore, 2+2+1½=5½ cents for each 1 per cent sulphur.

One per cent ash displaces 1 per cent of coal and costs 1 cent. The cost of firing is 1 cent and of ash removal is 1 cent, or a total of 3 cents for each 1 per cent ash. The sulphur and ash content can easily be figured from the above method and the costs can be determined for any percentage of impurities or price per ton of coal.

From the data given it should be an easy matter to pick the coal best suited for the requirements of the building, but the purchase of the coal is not the only item that should be checked for economical operation of the heating system.

Other Important Elements of Waste

From observations extending over a period of years I have found that the greatest losses in a heating plant are due to soot on the boiler heating surfaces, scale on the inside of the boiler, and the infiltration of air around doors and windows.

A BEAUTIFUL CHIMNEY

Can the school chimney be made beautiful? Can its necessary height be taken advantage of to make it a landmark of distinction, beauty, and utility? The architects of the University of Detroit, Malcolmson and Higginbotham, have designed the power house chimney for a new collegiate group to be a bell tower as well as a smoke flue. It rises as an ornament in a fine residence neighborhood.

Soot is one of the best heat insulators known to the combustion engineer. For retarding the passage of heat a deposit of soot ⅛ inch thick is equal to 1 inch of asbestos. Certainly we would not wish to cover the inside of our boilers or hot-air furnaces with an asbestos coat 1 inch thick. I have seen many cases where the soot was from ½ to ¾ inch in thickness and the school board wondered why their coal bills were so high. The custodian or man in charge of the boilers should be instructed to keep the heating surfaces clean and those in charge should see that it is done.

A second cause of waste in boiler operation is caused by boiler scale which consists of hard scale-like deposits resulting from impurities in the feed water. This scale prevents the water from absorbing the amount of heating it should. This loss, like soot losses, amounts to considerable. Some time ago I inspected a boiler at the request of a school board and found hard scale ½ to 1 inch thick covering nearly half of the inside surface of the boiler. For three years the coal bill of this school had shown a steady increase and at last was out of all proportion to the size of the building. I advised the use of a simple compound which removed the scale. The fuel consumption dropped 15 tons during the next heating season. Except in rare cases a small amount, say from 1 to 2 quarts, of tri-sodium phosphate, dissolved in water and fed into the boiler, will both remove the scale and prevent further formation. The amount of compound to be used depends on the size of the boiler. The material which should be obtained in powdered form, can be purchased from any chemical company. It is perfectly harmless, ideal for water softening, and valuable to have about the building for washing floors, windows, etc. A small amount, about 2 tablespoonfuls to a pail of water, is sufficient for ordinary purposes.

It is beyond the scope of this paper to discuss fuel losses due to poor firing methods; these can be overcome by instructing the fireman and requiring him to adopt a satisfactory routine. It is also beyond the scope of this paper to discuss losses from leaky stack breechings, or improperly built chimneys—an experienced engineer can quickly discover difficulties of these kinds. Another loss comes from poorly fitted doors and schoolroom windows. The windows should be tight, especially those on the north and west sides of the building. Weather strips will soon pay for themselves in coal saving.

The following is a short form contract which is coming into general use throughout the country for the purchase of coal in small quantities. It can be changed so as to meet any local needs and can be elaborated to provide penalties and premiums for coal which is below or above B.T.U. specifications:

The Simplest Form of Contract

AGREEMENT entered into this.....day of ....., 19..... between....., located at.....and hereinafter referred to as the *Seller* and.....hereinafter referred to as the *Buyer* and located at.....

The seller hereby agrees to sell and deliver between the.....day of....., 19..... and the day of ....., 19.., the quantity, quality, and kind of coal specified and the price hereinafter stated, to wit:

Quantity .....
Rate of Shipment.....
Kind .....
Description .....
Price .....
Terms of Payment.....

Source: The source of the coal specified herein shall be as outlined below:

Name of Mine or Mines.....
Railroad on which Mine or Mines are located.....

The *Seller* agrees that the average proximate analysis of the coal shall be:

Volatile matter, per cent.....
Fixed Carbon, per cent.....
Moisture, per cent.....
Ash, per cent.....
Sulphur, per cent.....
B.T.U. per pound..... *Seller*
..... *Buyer*

It is also good policy to have some form on which bids are to be made. The following can be used as a guide:

Bidders' Blank

To .....

The undersigned hereby agrees to deliver to..... .....Located at ....., ...tons of coal, conforming to the following Proximate Analysis:

Volatile matter.....
Fixed Carbon .....
Moisture .....
Ash .....
Sulphur .....
B.T.U. per pound.....

A certified copy of the above Analysis is made a part of this bid and was furnished by.....

Signed.....

School boards should pay just as much attention to the purchase of coal as any other comodity because whether the dollar saved is in coal or some other purchase they both contain one hundred cents.

HOLD JANITORS' SHORT COURSE AT FAIRFIELD, IOWA

The second annual janitors' short course was held at Fairfield, Iowa, June 13, 14, and 15. The course was given under the auspices of Supt. W. G. Pence of Fairfield, by the engineering extension division of the Iowa State College, and was conducted by Prof. R. H. Holbrook, Prof. V. L. Hein, and Prof. L. J. Murphy, all of the engineering extension division of the College.

The course which covered three days, took up such phases of the work as the selection of a janitor, steam and hot-water heating, cleaning of floors, firing methods, repair of fixtures and appliances, principles of ventilation, cleaning of furniture and fixtures, summer care of power plant, sanitation, and care of school grounds.

The course attracted a large enrollment of janitors, most of whom were from Iowa, with a small number from nearby states.

The Selection of Teachers by the Nonprofessional School Official

John P. Rice, Larwill, Ind.

From all that has been said and written concerning the selection of teachers by school officials, one would think the problem already solved. But such is not the case. As soon as we make a study of the factors influencing one type of school official, and begin to evaluate them in the light of the factors which may influence another type, perhaps in regard to the same individual, we see at once they are not the same. For instance, one type of school official may be strongly influenced by the personality of the candidate, while another may be influenced by the professional equipment.

Types of School Officials

It is indeed a problem to determine the factors tending to influence the various types of school officials, and the extent to which they are influenced by them.

School officials are of two types. One, the professionally trained; the other, the nonprofessionally trained. In some states, there is a greater number of nonprofessionally trained than of the professionally trained. It is evident that the viewpoints of these types are different on account of their training, interests, and experiences. To illustrate, one man says: "All I want to know about a teacher is: Is her character good? Is her training adequate? Has her teaching experience been successful? All this "bunk" about personality, social intelligence, and so on is not only a waste of time, but when you wade through this mass of chaff, you are worse off than when you started."

And the other writes: "There will be a few vacancies in the schools of ———— township the coming year. No one who has bobbed hair, who wears short dresses, who paints, or who attends dances need see me. I expect to give the people of this community the kind of a teacher we have needed for years."

Factors Considered by the Nonprofessionally Trained Official

Various studies have been made analyzing the factors considered by the professionally trained school official, but so far as I am able to learn this is a pioneer study of the factors considered by the nonprofessionally trained school official, and the extent to which he is influenced by these factors. In order to do this, from an unbiased angle, a list of probable sources of teacher supply was made, also a list of sources of information in regard to teachers, and a list of factors which may, or may not, be considered in the selection of teachers. Finally, a list was made of the ten factors most frequently considered by the professional school official so that they may be ranked by the nonprofessional official.

These factors constituted a questionnaire which was presented to the township trustees of Indiana at their annual session and also to the school-board members in Illinois. This association of trustees is made up of the past and present regularly elected township trustees of the state. In addition to the manner of securing data, the questionnaire was presented to the trustees in a few counties over the state when they were in session as county boards of education. Personal letters to the trustees were not relied upon and in no instance were they used. There were 197 returns from trustees and 101 from school-board members.

The study in Illinois with the school-board members was carried on by Principal O. E. Loomis of Capron, Illinois, with the assistance of the writer, and was conducted entirely by correspondence.

The questionnaire has four main divisions. They are:

1. Places where teachers may be obtained.
2. Sources of information concerning teachers.
3. Factors that may, or may not, be considered in the selection of a teacher.
4. Qualities that teachers may, or may not, have.

The items listed under these divisions were summarized from the following sources:

1. Recent studies concerning teachers from the viewpoint of the professional schoolman.
2. From the blanks sent out by teachers' agencies seeking information concerning teachers.
3. From discussions in a class of graduate students.

These items were not listed in the questionnaire with any thought as to their importance. A chance arrangement was utilized and in this study the alphabetical order was used. The form of the questionnaire was as follows:

Factors Considered in the Selection of Teachers

Will you think, please, of the last few teachers you have employed and then fill out the following questionnaire.

Do not sign your name to the paper

From which of the following places do you obtain your teachers?
(Please list in the order of preference as 1, 2, 3.)

1. From a similar school system..... ——
2. From teacher-training institutions..... ——
3. From teachers' agencies..... ——

Read carefully the following list of the sources of information concerning teachers and then:
Place a 1 after the source(s) you consider most important;
Place a 2 after the source(s) you consider less important;
Place a 3 after the source(s) you consider of no consequence.

1. Agency information blanks ..... ——
2. Personal interview..... ——
3. Recommendations of friends ..... ——
4. Recommendations of previous employers..... ——
5. Training-school record blank..... ——

Read carefully the following list of factors that may, or may not, be considered in the selection of teachers and then: —
Place a 1 after the factors which influence you most.
Place a 2 after the factors which you consider less important.
Place a 3 after the factors you consider of no consequence.

1. Ability to discipline..... ——
2. Ability to plan or organize..... ——
3. Age ..... ——
4. Character ..... ——
5. Church affiliation ..... ——
6. Common sense of the applicant..... ——
7. Courage ..... ——
8. Energy or enthusiasm..... ——
9. Financial condition of the applicant..... ——
10. Health ..... ——
11. Kind of experience ..... ——
12. Kind of training..... ——
13. Leadership ..... ——
14. Length of experience..... ——
15. Length of training..... ——
16. Manner of making application..... ——
17. Married or single (if men)..... ——
18. Married or single (if women)..... ——
19. Personal appearance of the applicant..... ——
20. Political affiliation..... ——
21. Recommendations of the applicant..... ——
22. Salary asked ..... ——
23. Self-confidence of the applicant..... ——
24. Sense of humor..... ——
25. Size of applicant..... ——
26. Sociability ..... ——
27. Teaching skill..... ——
28. Voice ..... ——
29. Willingness to assume responsibility..... ——
30. Your own general impressions..... ——

Read carefully the following list of qualities that teachers may or may not have and then: —
Place a 1 after the qualities you consider most important.
Place a 2 after the qualities you consider less important.
Place a 3 after the qualities you consider of no consequence.

1. Character ..... ——
2. Discipline ..... ——
3. Enthusiasm ..... ——
4. Experience ..... ——
5. Health ..... ——
6. Personality ..... ——
7. Scholarship ..... ——
8. Social Qualities ..... ——
9. Sympathy ..... ——
10. Teaching skill ..... ——

The returns are tabulated and the items ranked in tables I, II, III, and IV.

From the data in Table I it is evident that trustees and school-board members prefer to select their teachers from similar school systems, or from teacher training institutions, rather than from the "commercial" teachers' agency. Much might be said in favor of each of the above sources, but such does not come within the scope of this paper.

The data in Table II reveal that:

1. Trustees and school-board members consider the personal interview the most satisfactory method of securing information concerning a teacher.
2. The recommendations of previous employers and the training-school record blank have an important influence in the selection of teachers.
3. The recommendations of friends and the agency information blank are considered less important sources of information in regard to teachers.

TABLE I. Places Where Teachers Are Obtained

	Trustees Preference			Rank	Sch. Bd. Preference			Rank
	1	2	3		1	2	3	
1. From similar school system	134	54	9	1	40	41	20	2
2. From teacher training institutions	80	112	5	2	52	45	4	1
3. From teachers' agencies	4	19	169	3	9	16	76	3

TABLE II. Sources of Information Concerning Teachers

	Trustees Preference			Rank	Sch. Bd. Preference			Rank
	1	2	3		1	2	3	
1. Agency information blanks	4	36	142	5	8	32	51	4
2. Personal interview	152	33	5	1	79	15	4	1
3. Recommendations of friends	20	74	67	4	6	27	58	5
4. Recommendations of previous employers	96	64	22	2	30	44	18	2
5. Training-school record blank	41	71	42	3	33	37	26	3

TABLE III. Factors Considered in the Selection of Teachers

	Trustees Preference			Rank	Sch. Bd. Preference			Rank
	1	2	3		1	2	3	
1. Ability to discipline	172	10	5	2	90	7	0	2
2. Ability to plan or organize	157	11	12	3	68	24	1	9
3. Age	31	88	49	27	17	57	21	27
4. Character	181	2	2	1	95	0	0	1
5. Church affiliation	57	65	60	19	19	30	44	26
6. Common Sense of the applicant	147	27	6	7	84	14	1	4
7. Courage	116	39	14	9	53	29	8	13
8. Energy or enthusiasm	118	42	12	10	76	17	2	7
9. Financial Condition	19	35	115	29	4	29	61	29
10. Health	151	22	7	5	79	16	1	5
11. Kind of experience	89	77	5	16	50	42	2	14
12. Kind of training	107	63	7	14	69	25	2	10
13. Leadership	118	52	5	11	62	21	10	11
14. Length of experience	46	102	25	24	23	56	17	23
15. Length of training	50	100	16	20	43	46	6	18
16. Manner of making application	46	54	63	23	30	42	20	20
17. Married or single (Men)	36	62	68	26	21	21	49	25
18. Married or single (Women)	54	62	55	18	43	18	30	16
19. Personal appearance	109	42	25	15	61	23	10	12
20. Political affiliation	14	21	134	30	0	9	84	30
21. Recommendations of the applicant	51	75	45	21	33	43	17	19
22. Salary asked	49	76	48	22	23	55	18	24
23. Self-confidence	71	73	24	17	43	41	8	17
24. Humor	44	87	35	25	26	42	24	22
25. Size of the applicant	27	74	65	28	6	33	55	28
26. Sociability	112	41	17	12	49	39	7	15
27. Teaching skill	150	22	6	4	86	7	1	3
28. Voice	114	51	9	13	31	56	8	21
29. Responsibility	144	28	3	6	76	18	0	6
30. Your own general impressions	122	27	12	8	67	16	3	8

The above data indicate that:

1. The selection of a teacher is largely dependent upon, and determined by, the character traits of the applicant.

2. In employing teachers, trustees consider the ability to discipline, and to plan and organize, as very important with teaching skill closely allied.

3. Factors that make for constructive leadership such as: health, courage, energy or enthusiasm, sociability, personal appearance, common sense, and willingness to assume responsibility in the position assigned, rank high in the estimation of school officials when employing teachers.

4. There is a growing tendency to pay less attention to such factors as the following: (*a*) church affiliation; (*b*) age; (*c*) length of experience; (*d*) salary asked; (*e*) political affiliation.

5. School officials have no hesitancy in employing a married man, but there is a question oftentimes when it comes to the employment of a married woman. In many cases the single woman is given the preference. This question of the employment of a married or a single woman accounts for the ranking of this factor among the other factors.

General Conclusions

1. The opportunity for employment is better through a teacher-training institution than through a teachers' agency.

2. The establishment of placement bureaus in training institutions is causing a decrease in the number of "commercial" teachers' agencies.

3. When furnishing information concerning themselves to school officials, teachers should make arrangements for an interview if at all possible.

4. In seeking positions it is important that teachers have recommendations from previous employers to present to the official from whom they are seeking employment.

5. Agency information blanks and recommendations of friends are not considered by school officials as reliable sources of information concerning teachers.

6. Beginning teachers should furnish transcripts of their training-school work to the official of whom they seek employment.

7. School officials are strongly influenced by the character traits of the applicant. Such traits should be emphasized in the recommendations presented to the official.

8. School officials consider governing skill, organizing skill, and teaching skill of great importance in the selection of a teacher. Recommendations from previous employers should emphasize these factors.

9. Qualities indicating leadership should be outstanding in a candidate's application.

10. School officials, to a large extent, depend upon their own general impressions of the applicant. These impressions may be made effective by careful attention to the manner of making application and to personal appearance.

It is interesting to note the correlation between the opinions of the professional and the nonprofessional school officials. A study was made by B. W. Frazier and reported in the AMERICAN SCHOOL BOARD JOURNAL for May, 1924, in which he pointed out the factors considered by a large group of superintendents in selecting a teacher. The study is being used for comparisons, however a number of other studies have been made along this line but in the main the findings are closely correlated.

TABLE IV. Qualities Considered in Teachers

	Trustees Rank	Sch. Bd. Rank	Professional Rank
1. Character	1	1	
2. Discipline	2	2	2
3. Enthusiasm	6	6	5
4. Experience	10	9	
5. Health	3	4	7
6. Personality	5	5	4
7. Scholarship	8	7	1
8. Social qualities	9	10	8
9. Sympathy	7	8	6
10. Teaching skill	4	3	3

Only those factors are taken from the study of Frazier which are identical with this study.

It may be said in conclusion that, in general, all school officials look for practically the same characteristics in selecting teachers. However, the importance assigned the various factors varies with the particular official.

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Secretary and Business Manager,
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(See Page 82)

College Admission and Junior School

J. F. Santee, Oregon Normal School, Monmouth

When any Scholler is able to read and understand Tully, Virgill, or any such ordinary classical authors, and can readily make, speak, or write true latine in prose, and hath skill in makeing verse, and is completely grounded in the greek language, so as to be able to construe and grammatically to resolve ordinary greek, as the greek testiment, Isocrates and the Minor Poets or such like, haveing withall meet testimony of his towardness, he shall be capable of his admission into College.[1]

Thus quaintly were set forth the early entrance requirements of Harvard College. By way of contrast to the rapidly shifting admission standards of American universities during the last 60 years, it may be said that these original Harvard entrance requirements underwent no material alteration for more than a century.

But the 60-year period just closing has been preeminently an era of transition. No other period of similar duration has been marked by such vast and far-reaching changes. Industry has assumed gigantic proportions; inventions approaching in number all previous inventions of mankind have made of the nations one world-community; age-long beliefs have been weighed and found wanting; and democracy has sought to come into its own. A new orientation has taken place; humanity no longer looks to the past, but to the future.

Reflecting the spirit of the age, the changes in education have been profound. Early in the period under discussion it became difficult to confine the new wine of scientific thought in the old humanistic bottles. Willingly or unwillingly, colleges and universities made changes in programs of studies and admission requirements. Somehow, the exigencies of the ever-accelerating march of a dynamic civilization must be met. Education, shaken out of its complacency, became analytical, questioning, exploratory.

Among the many problems which have been presented to educators of our day, one of outstanding importance has been the proper articulation of high-school and college work. The present relatively high development of secondary education in the United States makes it difficult to realize that the high-school system is of recent origin. In 1860 there were forty high schools in our country.[2] A decade later there were only four times that number. It should be remembered that high schools were not originally intended to function as college-preparatory institutions, this type of work having been carried on very largely by academies and preparatory schools maintained in connection with colleges.

A consideration of some figures having to do with the rapid increase in high-school and college enrollment in recent years will be illuminating with reference to the problem of articulation. In 1913 there were in the United States 1,218,804 secondary-school pupils and 216,493 college students. The year 1923 showed a secondary-school enrollment of 2,873,000 and a college enrollment of 650,000. Thus, the 12-year period under consideration indicated an increase in secondary-school enrollment amounting to 212 per cent, while the increase in college enrollment was 305 per cent. To express the relation in another way, in 1913 there were 173 college students to each 1,000 secondary-school pupils, but in 1925 the number of college students to each 1,000 secondary-school pupils had risen to 230.[3] Let us, therefore, give passing consideration to college-entrance requirements and their more obvious implications.

As a high-school education is now received by something like fourteen per cent of our population,[4] it is readily perceived that college-admission standards affect, directly or indirectly, a large number of persons. Not only do these standards bear upon those seeking college entrance, but the program of studies of the secondary schools is in a large degree shaped in accordance with the demands of the college.

Before 1870 admission to college by examination was the accepted practice. In that year the University of Michigan took the lead in admitting without examination the graduates of certain designated secondary schools. This method of admission had a steady growth, particularly in the west, the University of California following the example of Michigan in 1884.

Although the time-honored method of admission by examination has been partially superseded in recent years—"It is still possible to enter college by examination, and it is impossible for the majority of students to enter many colleges in any other way."[5]

By what criteria should fitness for college be judged?

On the one hand there are the advocates of admission by the traditional examination route. On the other are those who favor the accreditation system. To the former it may be said that Thorndike found a low correlation between the results of college-entrance examinations and college marks.[6] Following his study of the value of entrance examinations, Thorndike was moved to express himself in these emphatic words: "Sooner or later there will be someone so barred out (by examination), who would, if admitted, be the best man in his class. It is a moral atrocity to decide fitness for college by a system which, when required to work to a moderate degree of accuracy, is wrong 47 times out of every 50."[7] While there is a higher degree of correlation between secondary-school performance and college records than between entrance-examination re-

[1]Broome: A Historical and Critical Discussion of College Admission Requirements, pp. 19, 20.

[2]W. T. Harris in Proceedings of the N. E. A., 1901.

[3]Proctor: The High School's Interest in the Methods of Selecting Students for College Admission—School and Society, XXII (Oct. 10, 1925), pp. 441-8.

[4]Douglass: Secondary Education, p. 87.

[5]Ibid.

[6]Educational Review, XXXI (May, 1906), pp. 410-83.

[7]Ibid.

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sults and such records,[8] it is true that the accreditation system brings much pressure to bear upon secondary principals, and as a consequence, poorly prepared individuals are now and then recommended to higher institutions of learning. It is true, also, that high-school marks sometimes mean little. The fact that colleges using the accreditation system are resorting to such devices as entrance examinations in English and admission on probation for the first quarter is indicative that the accrediting plan has its weaknesses.

To those who believe that intelligence tests should play a preponderating part in determining qualification for college entrance, it should be pointed out that not infrequently students with high intelligence ratings fail to do work of outstanding merit in college.[9] Character traits have a fundamental importance in contributing toward success in any sphere of endeavor.

It is now becoming evident that the rise of the junior high school has injected a new element into the situation. There is a feeling among many educators that when schools are organized on the 6–3–3 plan, the work of direct preparation for college should concern the senior high school alone. In 1924 the North Central Association of Colleges and Secondary Schools went on record (Report of Proceedings, 1924) as favoring an arrangement whereby the standards of college admission should apply, whenever a school is organized in some other way than as a traditional four-year high school, only to the tenth, eleventh, and twelfth grades. The universities of Michigan, Nebraska, and Missouri have adopted entrance requirements in harmony with this recommendation. Wellesley College, also, has a plan of admission recognizing the work of the junior high school.[10]

It is to Pennsylvania, however, that we must look for the widest acceptance of the so-called "twelve-unit" plan. A committee of the Pennsylvania State Education Association in December, 1924, reported in favor of this plan, stating the advantages as follows:

a) It would free the junior high school entirely from the burden of definite preparation for college.

b) It would secure a much better selection of students in the college preparatory work and thus simplify and improve the selection of students for college entrance.

c) It would concentrate the college-preparatory work in the last three years preceding entrance to college and make it more purposeful and significant.

d) It would eliminate double responsibility for certification to college and concentrate it in the office of the principal of the senior high school.[11]

In April, 1925, the Pennsylvania Department of Public Instruction presented the plan to all the colleges and universities of the state, suggesting that the principle might be made applicable to all entering students, or that it might be made to apply only to students from schools organized on the 6–3–3 basis. The Pennsylvania colleges and universities then adopting the twelve-unit plan were:

Bucknell University	Temple University
Waynesburg College	Villa Maria College
Penn State College	Washington and Jefferson College
University of Pennsylvania	Lafayette College
University of Pittsburgh	

On November 28, 1925, the Association of Colleges and Secondary Schools of the Middle States and Maryland went as far as to recommend—"that colleges be encouraged to try out the plan of accepting graduates of junior high schools on the basis of 12 entrance credits taken entirely in the senior high school."[12]

Arthur J. Klein, Chief of the Division of Higher Education of the U. S. Bureau of Education, found as a result of a questionnaire that 7.9 per cent of the 491 four-year colleges sending replies were admitting on a basis of 12 units of senior-high-school work. Of 426 four-year colleges replying as to willingness to accept 12 units of senior-high-school work for entrance, 73.2 per cent signified such willingness, "if other institutions and accrediting agencies approved such procedure."[13]

The general adoption of the 12-unit basis for college admission, whether by examination or otherwise, would tend to shift the burden of college-preparatory work to the senior high school, thus giving the junior high school a greater measure of freedom in working out its own problems. It is in the ninth grade that the group not contemplating college courses bulks largest. In seeking to minister to the needs of this group, as well as to the requirements of those looking forward to a college career, certain difficulties arise. The 12-unit plan would do much toward relieving the necessity for the pedagogical double-shuffle now going on so strenuously in our secondary schools.

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[8] Beatley: The Relative Standing of Students in Secondary Schools on Comprehensive Examinations and in College—School Review, June, 1924.
[9] Feingold: Correlation Between Intelligence and Scholarship, School Review, June, 1924.
Wilson: Mental Tests and College Teaching, School and Society, June 10, 1922.
Dagney: Intelligence Tests and Collegiate Selections, School and Society, May 27, 1922.
[10] Douglass: Secondary Education, p. 105. Rule: Progress of Pennsylvania in the Adoption of the Twelve-Unit Plan of College Admission—School and Society, XXIV (August 14, 1926), 210-212.
[11] Rule: Progress in the Adoption of the Twelve-Unit Plan—School and Society, XXIV (August 14, 1926), 210-212.
[12] Ibid.
[13] Effect of the Junior High School on College-Entrance Requirements—School Review, XXXIV (Oct., 1926) 563-6.

The High-School Dormitory in a Rural Montana District

Fred J. Ward, Winnett, Mont.

It is a bit of sophistry which requires that all pedagogical philosophy be opened with a series of definitions. Those who like to dig back into the history of education will tell us that the modern high school sprang from the English boarding school, such as Eton and Rugby. And yet, the high school, according to these same ruminants, is a distinctly American institution, resting upon the foundation of a mutual responsibility of school and home.

The one who attempts to define the dormitory as it is developing in Montana discovers himself without a vocabulary. The dormitory is certainly not a boarding school, for the most populous dormitory I know of in Montana houses only 34 per cent of the high-school student body. The dormitory is certainly not a home. It is a hybrid. Some administrators have declared that this hybrid has combined all the evil features of the home and the boarding school, and the problems which it has presented to school boards and superintendents exhibit the mulish traits peculiar to hybrids.

The Montana type of school dormitory was generated by the nature of Montana geography. Petroleum county offers a typical instance of the tremendous distances which confront the administration of one of our empire districts. Petroleum county is bounded on the north by the Missouri river. It extends southward and westward from the confluence of the Missouri and the Musselshell, to the foothills of the Judith Mountains. It is not large, as Montana counties go, but there are at least three states of the United States which do not embrace so great an area.

Except for the immediate region of the oil wells along the Musselshell and the irrigated tract north of Winnett, the whole of Petroleum county is a sparsely populated country. There are something like 1,000 children of school age in the entire county. Somewhat less than half of these live in District 159.

This district, which is approximately the size of the state of Rhode Island, contains the county seat, the oil fields, the irrigation projects. It has the only high school in the county.

The Winnett Dormitory

Our element of distance can be emphasized in another way. Winnett is at the end of the railroad. The closest high school is at Grass Range, thirty miles to the west. It is 110 miles to the city of Jordan, the nearest high school east of us, 46 miles to the nearest high school south of us, and one would have to travel for three days in an automobile over the almost impassable roads in the Missouri brakes to reach the town of Malta which contains the closest high school to our north.

Our high school has an enrollment of 91. Of these, only 37 live in the city of Winnett. A few are transported to and from school on the bus routes which radiate from the Winnett unit. The rest are from the outlying sections of the county.

That means that when school opens we have a high school composed, more than half, of students who are away from home. Remembering that a large fraction of these nonresident pupils are less than 15 years old and that the severe winters may isolate them from their parents for weeks at a time, we may see that the burden of caring for these youngsters is immediate and vital. That nice adjustments between parent and school breaks down if the parent is snowbound

50 miles out in the country and the children are turned loose on the streets.

It was the urge to fill this gap which established the high-school dormitory. Children farmed out to families in town are often left unrestrained. Those who "batch" by themselves are subject to the temptations which not all of them resist. The dormitory came, not as an innovation, but as a necessity. It was a return, in part, to the boarding-school idea, so popular in England. It has not been an easy adjustment, by any means.

The dormitory was a makeshift to care for the homeless children who might otherwise be led astray. It was something new, to this country at least. And like most makeshifts, and like all new things it has been hard to manage. It has presented vexing phases in which the inexperience of the school official would not guide him because he had not dealt with it before. The history of school dormitories is a history of early mismanagement, of trial and error, of gradual improvement in technique and methods. Any community planning a new dormitory might do well to import one of the school trustees from Whitehall or Sumatra or Winnett to advise in the planning. Experience has taught us a lot.

The Financial Problem

I have inferred that the school dormitory is a maker of problems, and such is truly the case. Not the least of these is the question of housing and finance. District 159 is fortunate in having a $2,000,000 oil valuation. Otherwise we could not entertain the ambitious dormitory project which we now hold. The dormitory in Winnett, however, dates back earlier than the discovery of oil on Cat Creek. This district was not always as wealthy as it is today, and the financial stringency of the earlier days can still be traced in the history of the dormitory and in the claim-shack carpentry of our present plant. Dormitories cannot be made to pay their way without cutting down the numbers staying in it to a point where the benefits of a dormitory are destroyed. The greatest single item of expense is the salary of the dormitory matron which will run at not less than $1,000 a year and living expenses. If the dormitory houses from 30 to 40 children, there will have to be a cook and someone to do the chores about the place. In the Winnett dormitory the children take turns washing the dishes after each meal. Each pupil makes his own bed, and tidies up his own room. A laundry equipped with stoves, machines, and electric irons is free to those who wish to do their own washing. Board is set at $16 the school month. The student brings his bedding from home.

Last year's figures show that the cost of repairs, the matron's salary, and other incidental

Classroom Standards of Leading School

Compiled and Arranged by John J.

Firm or Authority		Blackboards										Are Pinning Strips, and Where Used			Are Coat Rooms, Ward Robes, Lockers Used									Picture Molding			Doors																				
Name	Location	1st and 2nd Grades	3rd and 4th Grades	5th and 6th Grades	7th and 8th Grades	9th Grade	10th, 11th, and 12th	Are Blackboards Used at Rear			Remarks Regarding This				Rural and Elementary			Junior High			Senior High			Is it used, and where			Kind used, & height from Fl.			One or two from Cl. Rm. to Corridor			Size			Swing			Are Corridor Doors Glazed			Size of Glass Panels		
								Rural and Elementary	Junior High	Senior High		Rural and Elementary	Junior High	Senior High	What Kind	Size	Location	What Kind	Size	Location	What Kind	Size	Location	Rural and Elementary	Junior High	Senior High	Rural and Elementary	Junior High	Senior High	Rural and Elementary	Junior High	Senior High	Rural and Elementary	Junior High	Senior High	Rural and Elementary	Junior High	Senior High	Rural and Elementary	Junior High	Senior High	Rural and Elementary	Junior High	Senior High
Frank H. Wood	Albany, New York	3'6"	3'6"	3'6"	3'6" or 4'0"			Not Recommended			Reserved for Wardrobe Fronts	Rear if at all			Ward.		Rear	Ward. Lock.		Rear Cor.	Lock.		Cor.	Yes	Yes	Yes	Moulding 10'			1	1	1&2	3' x 7'6"						Yes	Yes	Yes	Upper Half Clear Glass Preferred		
A. B. K. Schoenberg	Olean, New York	3'	3'6"	3'6"	3'6"		4'	No	No	No	Of little value at rear	Above Bd.			Ward.	2'6" 18" 20"	Rear	Lock.		Cor.	Lock.		Cor.	Yes	Yes	Yes	Wood 10'6"			1			3' x 9'			In			Yes			2' x 2'		
Starrett & Van Vleck	New York City	3'6"	3'6"	3'6"	4'	4'	4'	Yes	Yes	No		Front of Room			Comb Rms.	4'8" x 23'		Lock.		Al-coves	Lock.		Al-coves	Yes	Yes	Yes	Wood 11'6"			1	2	2	3'6"	3'	3'	Out	Out	Out	Yes	Yes	Yes			
Tocker & Marsh	New York City	3'6"	3'6"	3'6"	3'6"	3'6"	3'6"	No	No	No	Of little value at rear	Over top Bl. Bd. 2'6" wide and Entrance			Ward.	2' x 12'		Lock.	12"x 72"		Lock.	12"x 72"		Yes			9'6"	9'6"	9'6"	1	1	1	3' x 7'			In	In	In	Yes	Yes	Yes	Bottom 4'6" Above Floor		
Poggi & Bragdon	Elizabeth, N. J.	4'	4'	4'	4'	4'	4'	No	No	No		Cork Bd. Rear 2'6" from Fl. 4' high			Ward.	2' Sect-inal		Ward	2' Sect-ional		Coat Rooms	5'x 23'		Yes.	2½" In line with trim above door trs.			1	2	2	3' x 7'			Out	Out	Out	Yes	Yes	Yes	Upper Half		
Lee & Hewitt	Paterson, N. J.	4'	4'	4'	4'	4'	4'	No	Yes	Yes	Depends on location and State Law	Tops & Ends of Black Bds. 1 or both			Ward.			Lock. or Ward.			Lock.			Yes			10' to 10'8"			1	1	1	3' x 7'						As a Rule Yes			Varies 12" x 18" to each 9 Lights		
Guilbert & Betelle	Newark, N. J.	4' high when no pin strip 3'6" high with pin strip above						Yes, when requested Special Rms.				Top of Bl. Bd.			We use all these methods on dif. jobs Depends upon Supt., and Conditions of Design									Yes	Yes	16" to 20" below Ceil. 1" or 2" below low Beams			1 Generally 2 if requested			3'6"	3'7"		Out	Out	Out	Yes	Yes	Yes	Upper Part Obs. Glass		
Mr. Tracy & Mr. Scherer	Rochester, N. Y.	3'6"			Same as Elem.		3'6"	Yes			Highly desirable Blackboard at Rear	Front			Ward.		Side	Ward or Lock.		Room or Cor.	Lock.	15"x 15"x 72"	Cor.	Yes	Yes	Yes	Ceiling			1	1	1	3'x7'x1¾"			In	In	In	Yes Upper Third			2' x 2' 9 Lights		
Frank Irving Cooper	Boston, Mass.		3'6"	3'6"	3'6"	3'6"	3'6"	No	No	No		Cork Board over Blackboard			Depends on Locality									Yes	Yes	Yes	Wood Near Ceiling			Mass. 2 N. Y. 1						Out	Out	Out	Yes	Yes	Yes			
C. Loring	Boston, Mass.	3'6"	4'	4'	4'	4'	4'	No	No	No	Not usually Called for Wardrobes at Rear	Tackboards above Bl. Bds.			Ward.	2' x 14'	Rear	Ward.	2' x 14'	Rear	Lock.		Cor.	Yes	Yes	Yes	At top of Bl. Bd. and just below Ceil.			1	1	1	3'	At least 1 Door to Adj. Room		Out	Out	Out	Yes	Yes	Yes	1 Panel 24" x 18"		
Morris Maloney	Springfield, Mass.	3'6"	3'6"	3'6"	3'6"	3'6"	3'6"	No	No	No	Consensus of Teaching Opinion here approves this	Over all B.B. & area equiv. to Bl. Bds.			Coat Rms.	4'6" x 20'		Lock.	15" x 72"		Lock.	15" x 72"		Yes	Yes	Yes	Stock Wood 10'8"			1	1	2	3' x 7'			Out	Out	Out	Yes	Yes	Yes	9 Lights 8" x 10"		
Walter C. Martin	New York City	4'		3'6"	3'6"		3'6"	Yes	Yes	No	They are in constant use	No	No	Front Ab. B.B.	Ward.	2' x 16'	Side	Ward.	2' x 18'	Side	Ward.	2' x 13'	Rear	Yes	Yes	Yes	Wood. 10'2"			1	1	2	3'6" x 7'			In	In	In	Yes	Yes	Yes	2' x 2'6" 3 Lights		
State Dept. of Educ. Samuel A. Challman, Dir.	St. Paul, Minn.	3'6"	3'6"	3'6"	3'6"	3'6"	3'6"	No	No	No	Wall used for Pin Strips	Rear			Coat Rms.	5' x 22'		Lock.		Cor.	Lock.		Cor.	No	No	No				1	1	1	3' x 7'			Out	Out	Out	Varies			Varies		
Childs & Smith	Chicago, Ill.	4'	4'	4'	4'	4'	Front 4' 3'	Yes	Yes	Yes		Side & Rear				No			No			No		Yes	Yes	Yes	Above Bl. Bd. and Ceil.	At Ceil.		1	1	1	3'	3'	3'	Out	Out	Out	Yes	Yes	Yes	10" x 16" Lights		
Pond & Pond Martin & Lloyd	Chicago, Ill.	4'	4'	4'	3'6"	3'6"	3'	Yes	Yes	Yes	Cork panel near Corr. Door. Also Display rail over all Bl. Bds. with sliding hooks for display purpose.				Lockers	15" x 15"	Cor.	Lock.	15" x 15"	Cor.	Lock.	15" x 13"	Cor.	Yes	Yes	Yes	Wood 11"			1	1	1	3' x 7'			Out	Out	Out	Yes	Yes	Yes	28" x 86"	24" x 42"	24" x 42"
Turner & Thebaud	Grand Rapids, Mich.	3'6"	3'6"	3'6"	3'6"	3'6"	3'6"	No	No	No	Cork Exhibition Board at Rear	3 Sides of Room		Map Strip Front	Coat or Ward.			Lock.	12"x 12"x 72"	Cor.	Lock.	12"x 12"x 72"	Cor.	Yes	Yes	Yes	Wood or Flush Metal 10'4"			1	1	1	3'x7"x1¾"			Out	Out	Out	Yes	Yes	Yes	2' x 3'		
Holmes-Powers Co.	Lansing, Mich. & Chicago	3'6"	3'6"	3'6"	3'6"	3'	No	Yes	Yes	Yes	Side Walls for Cases and Tacking	Side Wall bet. Cases and on End Walls			Coat Rms. 1st & Kindergarten 3x8' on inside wall. Lockers from 1st Grade on									No, Hang from cont. trim 7' high						1, 2 Doors Platoon Elem.			3'	3'	3'	Out	Out	Out	Yes	Yes	Yes	2'5" x 3'6"		
Herbst & Kuenzli	Milwaukee, Wis.	3'6"	3'6"	3'6"	3'6"	3'6"	3'6"	Yes	Yes	Yes	3 sides - Lately on 2 sides - Side opposite windows Cork Carpet	Above Blackboard			Coat Room	8' x 15'	Rear	Lock.	12" x 15"	Cor.	Lock.	12" x 15"	Cor.				Not always Ceil. or 18" below			1 or 2	1	1	3' x 7'			Out	Out	Out	Yes	Yes	Yes	3'8" x 2'2"		
Perkins-Chatten & Hammond	Chicago, Ill.							No	No	No	No Blackboard at Rear except on request	Above Blackboard			All 3			Lock.	12" x 15"	"	Lock.	12" x 15"					At Ceil. or Top of Transoms			2	2	2				Out	Out	Out	Yes	Yes	Yes			
H. W. Schmidt, Dept. of Publ. Instr.	Madison, Wis.	3' 3'6"	3' 3'6"	3' 3'6"	3'6"	3'6"	3'6"						Std. Bull. Bd. 3x4'		Coat Rooms and Ward Robes. Coat Rooms Preferred						Lock.	12"x 18"x 60"		Yes	Yes	Yes	Depends on Arch. Treat.			1	1	1	3'6" x 7'2"			Out	Out	Out	Yes	Yes	Yes	Varies with Design		
A. F. Dittmar	Montgomery, Ala.	3'6"	3'6"	3'6"	3'6"	3'6"	3'6"	No	No	No	Tack strips are placed over S.B. Bull. Bds. in a section adj. to entrance				Coat Rms.	4'x Wide Bds	Rear	Lock.	12"x 30"	Cor. Of Al-coves	Lock.	12"x 30"	Cor.	Yes	Yes	Yes	¾"x1¾" Stock 16" below Ceiling			1	1	1	3' x 7'			Out	Out	Out	No	No	No			
E. A. Christy	New Orleans, La.	4'6"	4'6	4'				Yes			12" wide Cork Bd. over all S.B. Also ½ length of wall at Rear. 4' high Cork Board				Grade School Cloak Rms. Adjacent to Class Rms. Serves 2 Rms. 3'6 wide. 1 Room 4'									Yes			Wood 16" From Ceil.			2			3'4" x 7'10" 2' Trs. Above			Out			Yes			Clear Glass 2'6" x 3'6"		
Haskell Pruett	Oklahoma City, Okla.	U. S. Bureau of Education Standards						Yes				Near Doors on Side			Coat Rms.	4'6" x 21'	Varies							Yes			10"			2			2'6" x 6'6"			Out			Yes			1'6" x 1'6"		
Dr. Dressler, George Peabody College	Nashville, Tenn.	2'6"	2'6"	2'6"	3'6"	3'6"	3'6"	See Note →			Yes, sometimes depends on amount on side wall	Above Boards			Coat Rms.			Lock.			Lock.			Yes	Yes	Yes	Set pictures as low as possible, Recessed Type			1, Except Where Law Demands Two			3' x 7'			Out	Out	Out	Prefer small pane single or none					
W. C. Eckels, Dept. of Education	Jackson, Miss.	4'	4'	4'				Yes	Yes	Yes	Presently not using as much and omit on rear	Above B. Bds. and both sides of Front			Coat Rms.	6' x 10'6"		Lock.	12"		Lock.	12"		Yes	Yes	Yes	1" Below Ceil.			1	1	1	3' x 7'			In	In	In	No	No	No			
F. A. Naramore	Seattle, Wash.	4'	3'6"	3'6"	3'6"	3'6"	3'6"	Yes	Yes	Yes	At Ends of Front Bl. Bds. and Rear of Room	Above B.B.		Ends off B.B.	Platoon Trad. Wards. Side Walls			Lock.	15"x 12"x 72"	Cor.	Lock.	15"x 12"x 72"	Cor.	Yes	Yes	Yes	Wood Against Ceiling Where Poss.			Platoon 2 Traditional 1			3'4"			Out	Out	Out	Yes	Yes	Yes	2' x 2'4"		
John J. Donovan	Oakland, Calif.	3'6"	3'6"	3'6"	3'6"	3'6"	3'6"	Yes	Yes	Yes	Believe could be omitted in good many instances	Above B.B.			Coat Rm.	4'6" x Long Room	Rear Gen.	Lock.	12"x 3'	Cor.	Lock.	12"x 12"x 72"	Cor.	Yes	Yes	Yes	Wood at Ceil.			1	1 Sometimes 2		3'6" x 7'			Out, Could Swing in Top			Yes	Yes	Yes	Varies		
J. C. Martin, Dept. of Education	Atlanta, Ga.	3'6"	3'6"	3'6"	3'6"	3'6"	3'6"	Only when required by the Supt.			In senior high and junior pin stripe. Bull. Bd. 2'w. 1' from end of side block	12" High over B.B.			Coat Rms.	4' x 22'		Coat Rooms & Lockers in Cor.			Lock.		Cor.	Yes	Yes	Yes	Wood P.N. 10' to 11'6"			1	1	1	Transom Over 3' x 7'			Out	Out	Out	Yes	Yes	Yes	2' x 2' 6 Lights		
Theodore Kistner	Los Angeles, Calif.	3'	3'	3'	3'6"	3'6"	3'6"	Yes	Yes	Yes	2 7/8" Cork strip in head Casing of all Blackboards	Above B.B.			Coat Rms.	4'6" x 25'3"		Lock.		Cor.	Lock.		Cor.	Yes	Yes	Yes	Wood 4" Below Ceil.			1 or 2 as desired			3' x 7' If one 3'4 x 7'			Out	Out	Out	Yes	Yes	Yes	2'1" x 2'4"		
Board of Education, W. E. Record, Bus. Mgr. Mr. Nibecker, Archt.	Los Angeles, Calif.	3'6"	3'6"	3'6"	3'6"	3'6"	3'6"	Yes	Yes	Yes	Sometimes used for Tackboard	Above all BB & at Corr. Doors 3'x3'6			Coat Rms.	4'6" x 18'		Lock.		Cor.	Lock.		Cor.	Yes	Yes	Yes	Wood 6" Below Ceil.			2	2	2	3' x 7'			Out	Out	Out	No	No	Yes	1	1	1' x 3'
Austin & Ashley	Los Angeles, Calif.							No	No	No		12" 16" over B.B.	4" over Bl. Bds.		Coat Rms.	4'6" x 23'		Lock.		Cor.	Lock.		Cor.	Yes			Generally on account of changing color at Ceiling			2	2	2	3' x 7'			Out	Out	Out	Yes	Yes	Yes	2' x 2' Polished wire Glass		
Andrew P. Hill, Jr. State Dept. of Educ.	Sacramento, Calif.	3'	3'	3'	3'	3'	3'	Yes	Yes	Yes		Front right Wall full Bl. B. Width			Coat Rms.	4'2" x 20'		Lock.	2 Tiers	Cor.	Lock.		Cor.	Yes	Yes	Yes	Wood as Arch. Designs			1	1	1	3'6" to 3'6"			Out	Out	Out	Yes	Yes	Yes	to 24" of Floor, 1 clear Panel only		
Board of Education City of Chicago	Chicago, Ill.	4'	4'	4'	3'6"	3'6"	3'6"	Yes	Yes	Yes	Very essential to accommodate size of class in Board Instruction	Over All Blackboard			Lockers	18" x 5'	Cor.	Lock.	1'3" x 6'	Cor.	Lock.	1'3" x 6'	Cor.	Yes	Yes	Yes	Wood 11'6"			2	2	2	3' x 7' Transom 2'6"			Out	Out	Out	Yes	Yes	Yes	2'2" x 2'6"		
C. M. Hirst, Director State Dept. of Educ.	Little Rock, Ark.	3'	3'	3'	3'	3'	3'	No	No	No	Use Boards at rear only when necessary	Usually at rear or sides and Front			Coat Rms.	6½" x 16" x 21'		Lock.			Lock.			Yes	Yes	Yes	1' to 1'6" from Ceil.			2	1	1	3' x 7'			Out	Out	Out	Yes	Yes	Yes	15" x 24"		

outlays made a deficit in dormitory maintenance of approximately $60 the pupil for the year.

A second source of administrative difficulty is in making and enforcing a set of dormitory rules. Almost invariably the parent who brings a student to the high school and turns him or her over to the school authorities, has a definite idea how the youngster should conduct himself or herself while away from home. Perhaps this idea marks a stricter regime than the parent would enforce if the child remained at home.

Dormitory Rules

In most Montana dormitories, the rules have crystallized into as definite a form as experience has proved their worth. In the Winnett dormitory children must be in by 8 o'clock on week nights. A study hour is maintained immediately after supper. Lights must be out by 10 p.m. On special occasions, dormitory children are permitted to go to a show or a party and remain out after hours, but such must first have the sanction of the superintendent. If a parent forbids a girl or a boy to go to shows or dances, the dormitory matron will enforce his wishes.

Most dormitories have the sleeping quarters of the boys completely segregated from those of the girls. This may be accomplished by separate floors, or by separate wings of the building. It is one of the strictest rules of the Winnett dormitory that the girls be not permitted to go down the hall into the boys wing of the building. For the boys to enter the girls' section of the building is likewise absolutely forbidden.

I have often compared the dormitory matron to the famous woman of English folk song, who lived in the shoe. Only in this case the matron is a public servant whose problems cannot be solved by whipping her children soundly and sending them to bed. The personal supervision of the matron over the daily lives of her high-school disciples would require a textbook to describe. Youngsters get homesick and the matron must encourage them to stay by. They contract illness and she must nurse them and watch over them. In Winnett the matron has a few simple medicines which are administered. In case of a grievous sickness the matron has authority to call in a physician, whose fee is paid by the school if the parents cannot afford to do so. Children have their petit fallings out and the matron must compose them. They grow boisterous and she must quell the disturbance. Or perhaps they fall in love and the matron must supervise their making goo-goo eyes at one another.

The Problem of the Matron

The duties, the trials, and the qualifications of the matron are not easily enumerated. The

(Concluded on Page 125)

Architects and School Construction Specialists

Donovan, A.I.A., Oakland, Calif.

Firm or Authority		Room Dimensions									Number of Pupils			Width of Aisles									Window Dimensions									Blackboard Location									Height Floor to Chalk Rail					
		Inside Width			Inside Lengths			Height						Window Aisle			Opposite Aisle			Intermediate Aisle			Floor to Sill			Masonry Opening						Rural and Elementary			Junior High			Senior High			Rural and Elementary			Junior High		Sr. High
Name	Location	Elementary	Junior High	Senior High	Rural and Elementary	Junior High	Senior High	Rural and Elementary	Junior High	Senior High	Rural and Elementary	Junior High	Senior High	Rural and Elementary	Junior High	Senior High	Rural and Elementary	Junior High	Senior High	Rural and Elementary	Junior High	Senior	Rural and Elementary	Junior High	Senior High	Rural and Elem. Width	Rural and Elem. Height	Junior High Width	Junior High Height	Senior High Width	Senior High Height	Front	Side	Rear	Front	Side	Rear	Front	Side	Rear	1st and 2nd Grades	3rd and 4th Grades	5th and 6th Grades	7th and 8th Grades	9th Grade	10th, 11th, and 12th
Frank H. Wood	Albany, New York	22'	22'	22' or 23'	30'	30'	30' to 32'	12'	12'	12'	40	40	26 to 40	2'6"		2'6"	3'6"		3'6"	1'6"		1'6"	11' Top Glass 3'6" Bottom Glass			Glass Area 20% Ft. Area						Yes	Yes	No							2' to 2'2"	2'2" to 2'4"	2'4" to 2'6"	3'	3'	3'
A. H. H. Schoenberg	Gleam, New York	22'			30'			12'			40			2'6" min.			3'0" min.			1'6" min.			3'6"			11'	8'3"					Yes	Yes	No							2'	2'2"	2'4"	2'6"		3'
Starrett & Van Vleck	New York City	23'	23'	23'	29'	26'	26'	12'	12'	12'	35	30 to 35	30 to 35	3'0"	3'0"	3'0"	3'0"	3'6"	4'0"	2'	1'8"	1'6"	2'6"	2'10"	3'2"	4'8"	9'5"	4'8"	9'5"	4'2½"	6'11"	Yes	Cork Bd.	Yes	Yes	Cork Bd.	Yes	Yes	Cork Bd.	Cork Bd.	2'	2'2"	2'4"	2'6"	2'6"	2'10"
Tucker & Marsh	New York City	21' to 22'	22'	22' to 23'	28' req. by Law		29' to 30'	12'	12'	12'	35	35	25 to 35	2'0"	2'0"	2'0"	3'6"	3'6" to 4'6"	3'6" to 4'6"	1'6"	1'10"	2'	3'	3'	3'	Vary	8'6"	Vary	8'6"	Vary	8'6"	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	2'2"	2'4"	2'6"	2'6"	3'	3'
Poggi & Bragdon	Elizabeth, N. J.	23'	23'	23'	30'	30'	30'	12'	12'	12'	35	35	35	2'0"	2'0"	2'0"	3'0"	3'0"	3'0"	Governed by Size of Desks			Approx. 2'			Varies. Within 2' 6" of Ceiling						Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	2' 8"			2' 8"		
Lee & Hewitt	Paterson, N. J.	Depends on Number of Pupils			Depends on Number of Pupils			Varies Covering State Law			Min.24 Max.40 18 sq.ft. Per Pupil			2'6" to 3'6"			3'0" to 3'6"			1'6" to 2'			2'6" to Ro.Op.			Per Cent Floor Area						Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	2'2"	2'4" to 2'6"	2'6" to 2'9"	2' 3"		
Gilbert & Betelle	Newark, N. J.	22' to 24'			28' to 32' Depends on No.of Pupils			12'	12'	12'	Determined by School Authorities			Furniture Contractors Install Desks									Varies on Account of Architecture			Varies. Type of Architecture. 20% Glass Provided						Determined by Sch. Supt. & Varies									2'2"	2'4"	2'6"	3' Elsewhere varies		
Mr. Tracy & Mr. Seberer	Rochester, N. Y.	23'9"	23'9"	23'9"	30'	30'	30' varies	12'	12'	12'	35	35	Min. 30 max. 45	Varies 3'	3'		Varies 3'4"			Varies 1'8"			3'6"	3'6"	3'6"	Cl.Area 17.24 sq.ft. 8'9"		Same as Elem.		16" Mullions 16-5/8 to 20¼ Fl.Area		Teach-ers Board 3'6"	Yes	Yes	Same as Elem.			Yes			1st Floor 2', 2nd Floor 2'4"		2'10"	3'		
Frank Irving Cooper	Boston, Mass.	19'10" 20'1"	22'4" 23'	23'10"	25'6" to 26'1"	28'2" 29'8	30'10"				35	35	35	2'6"	2'6"	3'0"	2'6"	2'6"	2'6"	1'6"	1'6"	1'6"	3'	3'4"	3'4"							Yes	Yes	No	Yes	Yes	No	Yes	Yes	No						
C. Loring	Boston, Mass.	21'	21'	21'6"	29'	29'	29'	11'6"	11'6"	12'	42	35	35	3'	2'6"	2'6"	3'	3'	3'	1'6"	1'6"	1'6"	2'6"	2'6"	2'6"	1/5 Floor Area, Top of Glass 6" from Ceiling						Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	2'6"	2'6"	2'6"	2'6"	2'6"	2'6"
Morris Malcmby	Springfield, Mass.	22'2"	22'2"	22'2"	29'6"	29'6"	29'6"	12'	12'	12'	40	35	35	3'6"	3'6"	3'4"	2'6"	2'6"	2'6"	1'6"	1'6"	1'6"	3'6"	3'6"	3'4"	21'3"	8'5"	21'3"	8'5"	21'3"	8'5"	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	2'	2'3"	2'5"	2'6"	2'6"	2'10"
Walter C. Martin	New York City	22'	22'	23'	28'	28'2"	26'	13'6"	13'6"	13'6"	48	48	35	2' From Radiator			2'6"	2'6"	2'9"	1'6"	1'6"	1'9"	3'6"	3'6"	2'11½"	9'8"	10'1½"	9'2"	10'2½"	10'	9'1½"	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	2'	2'6"	2'6"	3'	3'	
State Dept. of Educ. Samuel A. Challman, Dir.	St. Paul, Minn.	22'	22'	22' to 24'	30'	30'	30'	12'	12'	12'	40	40	35	2'6"	2'6"	2'6"	3'	3'	3'	1'6" to 2'	1'6" to 2'	1'6" to 2'	3'	3'	3'	3'6"	8'4"	3'6"	8'4"	3'6"	8'4"	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	2'"	2'4"	2'4"	2'6"	2'6"	2'6"
Childs & Smith	Chicago, Ill.	22'	22'	22'	30'	26'	26'	12'	12'	12'	30 to 35	30 to 35	30 to 35	2'6"	2'6"	2'6"	3'	3'	3'	Variable			2'6"	2'6"	2'6"	Var-iable	9'	Var-iable	9'	Var-iable	9'	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	2'	2'2"	2'4"	2'6"	2'6"	3'6"
Pond & Pond Martin & Lloyd	Chicago, Ill.	23'	24'	24'	29'	27'	27'	11'6"	12'6"	12'6"	42	34	34	1'6"	1'9"	1'9"	2'10"	3'	3'	1'6"	1'6"	1'6"	3'	3'	2'10"	20'6"	8'3"	19'6"	9'2"	19'6"	9'2"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	2'	2'2"	2'4"	2'6"	2'6"	3'
Turner & Thebaud	Grand Rapids, Mich.	22'	23'	23'	30'	28'	26'	12'	12'	12'				2'6" to 2'6"	2'4" to 2'6"	2'6" to 2'6"	3'6" to 3'6"	3'6" to 3'6"	3'6" to 3'6"	1'6"	1'6"	1'6"	2'11½"	2'11½"	2'11½"	3'6"	9'3½"	3'6"	9'3½"	3'6"	9'3½"	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	2'2"	2'4"	2'6"	2'6"	2'6"	2'6"
Holmes-Powers Co.	Lansing, Mich. & Chicago	22'	22'	22' to 24'	30'	30'	26'	12'	12'	12'	40	35	30	Very little fixed seating Used									2'9"	2'10"	2'10"	Extend to Ceiling						Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	2'	2'	2'3"	2'3"	2'6"	2'6"
Herbst & Kuenzli	Milwaukee, Wis.	23'	23'	23'	32'	26' and 28'	26' and 26'	12' and 12'6"	12'6"	12'6"	40	30 to 40	30 to 40	3' to 3'6"	36" with fixed Seats		4' to 4'6"	4'	4'	1'6" to 1'8"	1'8"	1'8"	Cl. Ag. 3'6" if Central Pan. 3'6 Unit Heaters			8'2"x 8'8" Varies --		Wood D.H. for Steel Sash		Wind		Yes	Some-times	Yes	Yes	Some-times	Yes	Yes	Some-times	Yes	2'	2'2"	2'6"	2'8"	2'8"	2'8" to 3'
Perkins-Chatten & Hammond	Chicago, Ill.	21' 24'	21' 22'	21'	24' 30'	22' 24'	22' 24'	11'6" 12'	11'6" 12'	11'6" 12'	35 40	30 35	25 30	3' If Beds	3'	3'				1'6"	1'6"	1'6"	3'6"	3'6"	3'6"							Yes	Yes	No	Yes	Yes	No	Yes	Yes	No		2'6" to 2'6"	2'6" to 2'8"	2' to 3'		
H. W. Schmidt, Dept. of Publ. Instr.	Madison, Wis.	22' 23'	22' 23'	22' 23'	30' 32'	28' 32'	24' 27'	12'	12'	12'	40 45	28 35	22 30	2'6" 3'	2'6" 3'	2'6" 3'	3'	Fixed 3'	Seats 3'	1'6"	1'5"	1'6" 1'10"	3'6" 4'	3'6" 4'	3'6" 4'							Yes	Yes	No	Yes	Yes	Some-times	Yes	Yes	Some-times	2'	2'2"	2'4"	2'6"	2'6"	2'6"
A. F. Dittmar	Montgomery, Ala.	Approx.22'6" to work with lumber lengths Frame Constr.			30'	24' to 30'	20' to 30'	12'6"	12'6"	12'6"	30 to 40	Classes Vary Min. 6 Pupils		Determined by Principal of School									3'6"	3'6"	3'6"	20'4"	7'6"	Var-ies	7'6"	Var-ies	7'6"	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	2'2"	2'2"	2'8"	2'10"	2'10"	2'10"
E. A. Christy	New Orleans, La.	22' to 23'			29' to 31'			12'			Average 35 Pupils			2' 6"			4' 4"			1'5"			3'1"			18'6" Wide 8' Height							Yes Front, Side and Rear						1'6"	1'6"	2'			
Haskell Pruett	Oklahoma City, Okla.	21' to 23'			28' to 32'			12'			30 to 40			2'6"			3'			1'9"			3'10½"			3'6"	7'7"					Yes	Yes	Yes							U. S. Bureau of Education Standards					
Dr. Dressler, George Peabody College	Nashville, Tenn.	22'	22'	19'	30'	28'	27' or 26'	12'6"	12'6"	12'6"	35 to 40 max.	30 to 35 max.	25 to 35	If radiators under Windows 30" otherwise 18"			4'7" or 5'7"			1'7"			Not Less Than 4'			4'	8'	4'	8'	4'	8'	Yes	Yes	If need-ed	Yes	Yes	De-mands	Yes	Yes	De-mands	2'2"	2'6"	2'10" and 3'	3'6"	3'6"	3'6"
W. C. Kokels, Dept. of Education	Jackson, Miss.	21'	21'	21'	28' to 32'	30'	20' to 32'	11'6" 12'	11'6" 12'	11'6" 12'	36 42			1'6" Up	1'6" Up	1'6" Up	3' Up	3' Up	3' Up				3'6" 4'	3'6" 4'	3'6" 4'							Yes	Yes	Yes							2'	2'4"	2'6"	2'10"	2'10"	2'10"
V. A. Waramore	Seattle, Wash.	22' 25'	22' 25'	22' 25'	32' 26'	27'6" 25'	25' 22'	12' to 12'6"	12' to 12'6"	12' to 12'6"	40 42	39	34	Not less than 2'			2'6"	2'6"	2'6"	Not Less Than 1'4			3'	3'	3'	20% Glass Area						Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1'10" to 2'	2'4"	2'4" and 2'6"	2'6"	2'6"	3'1"
John J. Donovan	Oakland, Calif.	22'	22'	22' and 23'	30'	27' and 30'	27' and 30'	12'	12'	12'	40	30 to 35	30 to 35	40 with Tablet Arm Chairs 2'6"	2'5"	2'6"	3'	3'	3'	1'6"	1'6"	1'6"	3'	3'	3'	3'6"	8'4"	3'6"	8'4"	3'6"	8'4"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	2'2"	2'4"	2'6"	2'6"	2'5"	3'
J. C. Martin, Dept. of Education	Atlanta, Ga.	22'	21' 22'	21' 22'	30'	26' 30'	26' 28'	12' to 12'6"	12' to 12'6"	12' to 12'6"	40	30 to 35	25 to 35	2'6" to 3'	2'6" to 3'	2'6" to 3'	3'6" to 4'	3'6" to 4'	3'6" to 4'	1'6" to 1'8"	1'6" to 1'8"	1'6" to 1'8"	3'10" to 4'	3'10" to 4'	3'10" to 4'	3'8"	7'10" to 8'	3'6" to 3'8"	7'10" to 8'	3'6" to 3'8"	7'10" 8'	Yes	Yes	As Re-quired	Yes	Yes	As Re-quired	Yes	Yes	As Re-quired	1'10"	2'	2'2"	2'6"	2'6"	2'10"
Theodore Kistner	Los Angeles, Calif.	23'3"	23'3"	23'3"	30' to 32'	27' to 30'	27' to 30'	Approx.12'7"			42	35	35										2'6" to 3'	2'6" to 3'	Varies	4'5"	9'					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	2'2"	2'4"	2'6"	2'10"	2'10"	3'
Board of Education, W. E. Record, Bus.Mgr. Wm. Wibecker, Archt.	Los Angeles, Calif.	23'	23'	23'	30'	30'	30'	12'6"	12'6"	12'6"	35 40	35 40	35 40	3'6"	3'6"	3'6"	4'	4'	4'	18" to 24" Depends on Desk Size						1/6 Floor Area						Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	2'2"	2'4"	2'6"	2'6"	2'8"	2'10"
Austin & Ashley	Los Angeles, Calif.	23'	23'	23' to 25'	30'	30'	20' to 30'	13' 2½"			35 to 40	35	20 to 35	3' on acct. of Radiators			3'	3'	3'	1'6" to 2'			3'			3' to 3'6"	9'	3' to 3'6"	9'	3' to 3'6"	9'	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No						
Andrew P. Hill, Jr. State Dept. of Educ.	Sacramento, Calif.	23'	23'	23'	29'6" to 32'	29'6" to 32'	24' to 36'	12'	12'	12'	35 to 40	35 to 40	20 to 40	2'	2'	2'	3'6"	3'6"	3'6"	1'6"	1'6"	2'	6" Above Desks									Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	2'2"	2'4"	2'6"	2'6"	2'6"	3'
Board of Education City of Chicago	Chicago, Ill.	24'	24'	24'	30'	30'	30'	Approx.13'			48	48	48	2'6"	2'6"	2'6"	2'10"	2'10"	2'10"	1'6"	1'6"	1'6"	Approx. 3'			11' to 13'	10' App.	11' to 15'	10' App.	11' to 13'	10' App.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	2'4"	2'4"	2'6"	2'10"	2'10"	3'
C. M. Hirst, Director State Dept. of Educ.	Little Rock, Ark.	22' to 23'	20' to 21'	20' to 21'	30'	25' to 27'	25' to 27'	12'	12'6" to 11'	10'6" to 11	40 to 45	30 to 35	20 to 30	2'	2'	2'	3' to 4'	3' to 4'	3' to 4'	1'6"	1'6" Hose		3'6" to 4'	4'	4'	8'	7'6"	3'	6'6" to 8'	3'	6' to 8'6"	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	2'	2'3"	2'6"	2'6"	2'6"	3'

The Duties of Public-School Administrators—Article VI

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The present article continues a series of analytical articles which have dealt with the duties of public-school administrators. Following an introductory treatment of the general distribution of administrative duties, detailed analyses have been made of the special fields of education administration known as general control, executive management, business management, and personnel management. The following section continues the series with a detailed treatment of the duties of principals and superintendents in connection with the accounting and management of pupils.

VIII. The Accounting and Management of Pupils

The administrative duties in the field of pupil accounting and management are those which pertain to keeping an adequate record of school children and providing orderly procedure for effective school progress. The personnel management of pupils has evolved rapidly since the early child accounting studies of Thorndike, Ayers, and others concerning the facts, causes, and remedies for non-attendance, retardation, and irregular school progress. Better methods have been devised for keeping systematic records and numerous administrative devices have been invented for improving classification, speeding up promotion, and handling the problems of pupil personnel. The literature[1] in this field has made significant advances in recent years, and under the additional stimulus of numerous State laws, public-school executives have come to regard more and more seriously the duties which are attached to the accounting and management of pupils.

In the vocational analysis which has been the basis of the present series of articles and which first resulted in the selection of 1,000 administrative duties to cover the activities of public school executives, it was found that 120 duties, or 12 per cent of the total number, fell in the field of pupil accounting and management. These 120 duties have been classified into the following minor groups, the titles of which will be used in the more detailed discussion to follow:

1. Census and Attendance..... 38 duties
2. Promotion and Progress..... 20 duties
3. Classification of Pupils..... 18 duties
4. Reports and Records..... 22 duties
5. The Discipline of Pupils..... 22 duties

1. Census and Attendance

Notwithstanding the literary and legal support which has been given to the importance of securing accurate census and attendance data, it is surprisingly difficult to obtain definite figures concerning present conditions in the United States. At best, they are far from being satisfactory either in the country or city. It seems safe to say that not more than 85 per cent of the children available are enrolled in school, and that the percentage of attendance of those who are enrolled is little if any higher. It is not in place here to check the causes and remedies of this unfavorable situation, but a canvas of the duties which school executives perform in connection with census and attendance will throw considerable light upon it.

A list of the census and attendance duties which were performed by 473 public-school administrators in the course of a year's time may be found in Table XXVII. Table XXVII is made up of 38 different duties which are ranked in order according to the percentages of the superintendents who perform them during the year studied, the most commonly performed duties appearing first. Thus, the duty, *Check attendance with enrollment*, which was performed

[1]The following are general treatments: Heck, Arch. O., *Administration of Pupil Personnel*, Ginn, 1929; McAllister, A. J. and Otis, A. S., *Child Accounting Practice*, World, 1927; Moehlman, Arthur, *Child Accounting*, Friesema Brothers Press, 1924; Sears, J. B., *Classroom Organization and Control*, Houghton Mifflin, Revised, 1928.

This is the sixth article summarizing the findings of a survey of the principal duties of school administrators. The paper will be especially valuable to school boards in fixing responsibility and in dividing authority.—The Editor.

by 84 per cent of 278 superintendents, was the most commonly performed duty, and the duty, *Check attendance in part-time schools*, which was performed by 5 per cent of the superintendents, was the least commonly performed duty. Table XXVII also exhibits the percentages of general (combined elementary and high) principals, high-school principals, and elementary-school principals, respectively, who performed the same duties. For example, as contrasted with the 84 per cent of the superintendents who performed the first duty, *Check attendance with enrollment*, there were 79 per cent of the general principals, 73 per cent of the high-school principals, and 63 per cent of the elementary principals who performed the same duty. The next to the last column in Table 27 shows the median frequency with which the various duties were performed by the superintendents who did perform them, the first duty, for example, being performed once a month. The last column in Table XXVII exhibits the degree of administrative importance which was attached to each duty by the median of 50 judges, grading on a basis of 1 for primary importance, 2 for average importance, 3 for little importance, and 0 for no administrative importance, the first duty in this case receiving a value of 1.

In practically all of the numerous groups of administrative duties which have been considered thus far, the superintendents have performed the various duties considerably more commonly than have any of the three groups of principals. This is not true of the 38 census and attendance duties. On the whole, the four groups of administrators perform these duties with approximately equal numbers. The superintendents lead with some of the more general duties, such as *Check enrollment with attendance, Make summary of census, Investigate pupil attendance in private schools*, and *Employ truant officer*. The principals, on the other hand, lead the superintendents in the performance of many special duties. The general principals, for example, lead all others in performing the duties, *Ascertain pupils of school age not in school* and *Examine reports of attendance officer;* the high-school principals lead generally in performing duties dealing with excuses and permits, such as *Admonish tardy pupils, Check class cuts, Sign excuses of pupils*, and *Issue tardy permits;* and the elementary principals lead with the duties, *Enroll children of school age, Keep register*, and *Take census of district*. It is evident that the high-school principal has considerably more to do with individual cases of absence, tardiness, etc., than any of the others.

Important information is revealed in Table XXVII with respect to the popularity of certain well-known census and attendance duties. For example, the duty, *Admonish tardy pupils*, is the most popular of the duties involving personal relations with the pupils. It was performed by approximately 80 per cent of all executives. The duties, *Notify parents of child's truancy* and *Ascertain causes of truancy*, were performed by about 65 per cent; *Issue absence permits*, by 26 per cent of the elementary-school principals and 64 per cent of the high-school principals; *Make special drive on attendance*, by from 35 to 40 per cent of all administrators; *Keep register*, by about 60 per cent of all principals; *Act as truant officer*, by from 16 to 30 per cent of all administrators; and *Take census of district*, by from 10 to 32 per cent of all administrators.

The duties of census and attendance vary greatly as to frequency and value of performance. For the first time in the series, daily, weekly, monthly, and yearly duties are all represented in a single table. Duties of all degrees of importance are also recognized. Over one-half of the 50 judges voted the duty, *Act as truant officer*, to be of no administrative value from the point of view of a superintendent performing it. On the other hand, a considerable number of the duties were voted to be of first importance. There is, however, little correlation to be found between the administrative importance of a duty and the number of school executives performing it.

In spite of the long list of duties which are exhibited in Table XXVII, it does not appear that the administrators represented are taking a sufficient active part in connection with census and attendance duties. Relatively few duties have occupied the attention of more than three-

TABLE XXVII. ADMINISTRATIVE DUTIES PERTAINING TO CENSUS AND ATTENDANCE

(Frequencies are d for daily, w for weekly, m for monthly, y for yearly, y^2 for two times a year, etc. Values are 1 for primary, 2 for averages, 3 for minor, and 0 for no importance.)

DUTY	Percentage of Administrators Performing				Median Frequency	Median Value
	Supt.	Gen. Prin	H. S. Prin	E. S. Prin	Supt.	
1. Check attendance with enrollment	84	79	73	63	m	1*
2. Instruct teacher in use of register	77	85	51	83	y	2
3. Keep summary record of attendance	72	82	75	76	m	1*
4. Check enrollment with census	72	57	45	24	y	1*
5. Interpret compulsory attendance laws	71	67	51	46	y^2	1*
6. Ascertain pupils of school age not in school	69	77	51	51	y	1*
7. Admonish tardy pupils	67	80	87	76	m	2
8. Notify parents of child's truancy	65	68	77	49	m	2
9. Ascertain causes of truancy	62	64	73	61	m	2
10. Tabulate census information for school use	61	51	17	42	y	1*
11. Check excuses for absence	57	86	88	76	d	3
12. Check excuses for tardiness	54	86	88	68	d	3
13. Investigate claim for exemption from attendance	53	50	42	39	y^3	1*
14. Enroll children of school age	52	51	34	62	y	2
15. Call on parents of truant child	48	48	50	41	y^2	3
16. Make summary of census	46	32	16	32	y	2
17. Check class cuts	46	59	77	32	w^2	3*
18. Issue absence permits	42	42	64	26	w	3
19. Issue permits to get into classrooms	41	40	72	12	w^2	3
20. Supervise taking of census	40	9	12	22	y	1*
21. Study attendance data from other cities	40	25	30	27	y	2
22. Issue early dismissal permits	38	42	59	39	m	2
23. Sign excuses of pupils	38	52	70	41	d	3
24. Make special drive promoting attendance	35	40	42	32	y^2	2
25. Issue tardy permits	32	40	59	25	w	3
26. Keep register	30	62	53	66	y	2
27. Investigate pupil attendance in private schools	30	8	5	20	y	3
28. Act as truant officer	30	20	16	17	y^3	0*
29. Examine reports of attendance officer	29	37	24	29	m	1*
30. Check work of truant officer	28	22	20	17	m	1*
31. Take census of district	25	18	10	32	y	3
32. Make graphs showing attendance	25	22	21	20	y^2	2
33. Classify non-attendance by grades, buildings, etc.	24	15	17	17	m	2
34. Employ truant officer	24	9	9	12	y	1*
35. Make school population map of city	17	8	6	5	y	2
36. Investigate privately tutored children	13	5	13	12	y	2
37. Examine report from juvenile officer	13	6	21	15	m	1*
38. Check attendance in part-time schools	5	0	1	7	y^6	1*
Average	44	43	43	37		

*More than one half of the judges assigned this value.

fourths of the executives and many important duties were performed by less than one half. A good deal of attention is given to clerical duties, but the amount given to constructive duties is far from satisfactory.

2. Promotion and Progress of Pupils

It has been only a few years since the schools of the United States were held hard and fast in an adamantine annual promotion system based almost in its entirety upon the successful passing of examinations in a fixed body of subject matter and for the most part entirely neglecting the immediate needs or abilities of the pupils concerned. This plan of promotion resulted in very large amounts of retardation and elimination which, when eventually realized and given publicity, started a widespread movement to speed up promotion. Out of this movement have come numerous promotional devices. Some are of a minor character pertaining to individual readjustments; others are of major importance, in some cases involving a reorganization of the entire school system. So far-reaching has become the movement to improve promotional conditions that it is impossible to isolate a representative group of administrative duties which bear solely and characteristically upon promotion. All of the duties connected with pupil accounting and management bear more or less directly upon promotion. The duties which are more immediate to promotion have been selected for consideration at this point. These duties appear here as Table XXVIII.

The 20 duties which have been listed in Table XXVIII are arranged on the same plan of tabulation as those in Table XXVII, the more popular appearing first. As a group, these duties are performed somewhat less commonly than the average administrative duty. Only one duty of the twenty, *Pass on doubtful cases of promotion,* was performed by more than 75 per cent of the superintendents, and only six were performed by more than 50 per cent. As was true of the duties connected with census and attendance, the duties pertaining to promotion were performed by principals almost as commonly as by superintendents. The only duties which superintendents performed in numbers significantly greater than the principals were *Issue rules for promotion* and *Issue work permits.* The high-school principals led the other groups with a number of duties, noticeably *Sanction pupils taking less than regular work* and *Recommend tutor for backward pupil.* They were conspicuously behind the other executives with the duties, *Pass on doubtful cases of promotion, Collect age-grade data,* and *Check double promotions.* The elementary principals were far behind in arranging with pupils to take more or less than normal work. The data exhibited in Table XXVIII make it evident that the several types of school executives are taking considerably different points of view with respect to necessary promotional duties.

Possibly the most significant duty reported in connection with promotion is the duty, *Promote drive on reducing failure and retardation,* which was performed two times a year by about 60 per cent of the executives. Over one half of the superintendents and principals collected age-grade data, but less than a third constructed age-progresses or mental age-grade tables. The three special progress devices, auxiliary teaching visiting teachers, and language classes for foreigners, two of which are considered to be of primary administrative importance, are conspicuous for their low performance percentiles. The duties pertaining to promotion are all performed on a yearly basis. One-third of them are rated as being of primary administrative importance, but as a whole there is no correlation between values and popularity of performance.

3. The Classification of Pupils

One of the outgrowths of the movement to speed up promotion is the present tendency to classify pupils according to different bases than those which were common to the so-called lock-step system. Greater attention is paid to the peculiar individual differences which exist among children of similar chronological ages, and pupils are rearranged in groups according to similar needs and abilities. Many new bases have been suggested for classification, such as mental age, the I. Q., achievement age, speed, special defects, malnutrition, retardation, outlook, etc. No attempt has been made in the present study to isolate all of the administrative duties bearing upon the classification of pupils. Many duties of the total 1,000 other than the 19 listed here in Table XXIX bear directly upon classification. Testing duties, for example, are listed elsewhere. The 18 duties which have been isolated do, nevertheless, give a fairly adequate picture of present-day administrative participation in this field. Judging from the facts revealed, the total amount of constructive participation is comparatively low.

TABLE XXIX. ADMINISTRATIVE DUTIES PERTAINING TO THE CLASSIFICATION OF PUPILS
(Frequencies are d for daily, w for weekly, m for monthly, y for yearly, y^2 for two times a year, etc. Values are 1 for primary, 2 for averages, 3 for minor, and 0 for no importance.)

DUTY	Percentage of Administrators Performing				Median Frequency	Median Value
	Supt.	Gen. Prin	H. S. Prin	E. S. Prin	Supt.	
1. Determine eligibility of pupils	76	89	82	56	y^2	2
2. Transcribe credits for graduates and leaving pupils	73	85	81	41	y*	3
3. Schedule pupils	64	79	78	49	y^2	3
4. Make special promotions	56	51	28	66	y^2	2
5. Assign credits to entering pupils	56	56	71	15	y^2	2
6. Direct students to rooms	53	52	66	59	y^2	0*
7. Redistribute crowded grades	50	35	34	44	y^2	1*
8. Make grade distribution sheets	45	32	30	39	y^2	1*
9. Assign children to different schools	44	22	19	29	y^2	1*
10. Direct special groupings	42	28	45	41	y^2	1*
11. Make pre-classification estimates	42	22	37	29	y	1*
12. Investigate need for special classes	37	25	36	24	y^2	1*
13. Assign credit for outside instruction (e.g., music)	32	23	52	2	y	2
14. Assign children to special classes	26	14	26	15	y	2
15. Placate parents of special children	19	8	14	22	y^2	2
16. Arrange for institutional children	16	14	10	24	y	1*
17. Organize ungraded class	14	3	10	20	y	2
18. Organize opportunity class	14	5	19	12	y	1*
Average	42	36	41	33		

*More than one half of the judges assigned this value.

Compared with their performance records in other administrative fields, the high-school principals show exceptional activity in this group of duties, although in two, *Make special promotions* and *Assign children to different schools,* they show comparatively little interest. The elementary principals as a whole are less active, conspicuously so in the matter of assigning credits for outside work. They are comparatively most active with the duty, *Make special promotions.*

Nearly one-half of the 18 classification duties were voted by the 50 judges to be of primary administrative importance, but there is a negative correlation between the values assigned and the relative numbers of superintendents and principals performing. In this group of duties theory and practice seem to be in discord. The one duty, *Direct students to rooms,* which was assigned an administrative value of 0, was performed by considerably over one half of all administrators. Many significant duties are listed in Table XXIX, but in light of the constructive possibilities in this field, the total showing cannot be said to be specially commendable. The greatest progress seems to be along the line of special promotions and the organization of special classes. In this connection it is interesting to note the apparent necessity of placating the parents of special children (See Duty 15).

4. Reports and Records

A number of excellent systems of child accounting have been worked out and several states have undertaken to set up systems of uniform child accounting. Progress in setting up accounting forms, however, has far outstripped progress in the utilization of forms. It is the exceptional school system that has anything like a complete record of its pupils. Nevertheless, school administrators concern themselves frequently with records and reports. The extent and frequency with which duties pertaining to records and reports were performed by superintendents and principals during a year's time are exhibited in Table XXX.

The 22 duties which are listed in Table XXX are far from being as comprehensive as a theoretical analysis would predict, and many of them are purely clerical in character. Nevertheless, they necessitate a very respectable amount of time and thought on the part of the administrative officers concerned. The most notable feature of this set of duties is the fact that they are performed, as a whole, more commonly by each of the three sets of principals than by the superintendents. The superintendent leads the others in four cases only, the most important of which is *Establish uniform marking system.* There are few significant differences among the three groups of principals. The high-school principals make health reports less commonly than the others, and the elementary principals have decidedly less to do with the following duties: *Assign credit to entering pupils, Construct new type of pupil report card,* and *Compute comparative school record of graduates.* They have, on the other hand, decidedly more to do with the duty, *Fill in pupil health cards.* The duty, *Examine teachers' marks* was performed more commonly than any other duty of the 22, and it seemed necessary during the year for as many as 68 per cent of the superintendents to establish a uniform marking system. The majority of the

(Continued on Page 119)

TABLE XXVIII. ADMINISTRATIVE DUTIES PERTAINING TO THE PROMOTION AND PROGRESS OF PUPILS
(Frequencies are d for daily, w for weekly, m for monthly, y for yearly, y^2 for two times a year, etc. Values are 1 for primary, 2 for averages, 3 for minor, and 0 for no importance.)

DUTY	Percentage of Administrators Performing				Median Frequency	Median Value
	Supt.	Gen. Prin	H. S. Prin	E. S. Prin	Supt.	
1. Pass on doubtful cases of promotion	84	88	65	81	y^2	2
2. Issue rules for promotion	75	59	51	44	y	1*
3. Promote drive on reducing failure and retardation	63	59	58	54	y^2	1*
4. Arrange with pupil to do extra or double work	55	66	59	39	y^2	3
5. Sanction pupil taking less than regular work	55	54	77	22	y^2	2
6. Collect age-grade data	53	57	39	63	y	1*
7. Check double promotions	46	37	27	41	y^2	1*
8. Secure employment for pupil	42	26	46	24	y^2	3
9. Construct age-grade enrollment table	39	42	30	32	y	2
10. Issue work permit	37	25	23	24	y^2	2
11. Study effects of late entrance and nonattendance	35	26	39	39	y^2	2
12. Compute acceleration and retardation statistics	34	35	35	54	y	1*
13. Recommend tutor for backward pupil	33	20	37	27	y^2	2
14. Construct age-progress table	32	34	24	37	y	2
15. Construct mental age-grade table	31	25	23	32	y	2
16. Construct age-grade elimination table	24	20	19	20	y	2
17. Organize auxiliary teaching	11	0	8	2	y	1*
18. Make a record of wage earning opportunities	10	3	7	12	y	3
19. Secure employment of "visiting-teacher"	6	0	2	2	y	1*
20. Organize language class for foreign children	3	2	1	0	y	2
Average	38	34	34	33		

*More than one half of the judges assigned this value.

A Study of School Desks and Seats

Elbert R. Mills, McKenzie, Tenn.

(Concluded from June)

The Tilt of Seats and Backs

The exact amount of tilt in seat, back, and desk-top can only be determined by accurately measuring the individual child which is to use the desk. The curves of the seat and back of the chair are more individual. Only general conditions can be given until a more thorough investigation has been made of the anatomical curves of the back and thigh. The writer's study attempted no measurements of the back and thigh curves, hence the figures given are based on a limited number of measurements of seat tilt, on observational study of posture and of anatomical lines, and the effect of weight upon knee-height. The writer is convinced that a set rule requiring that the tilt of the seat or back should be ½ inch or ¾ inch or some other fixed numerical value, is erroneous and misleading. Such statements can be made only with relation to the depth of the seat or height of the back and the curves of each. If the seat and back are properly curved on those surfaces in contact with the child, the tilt of these parts may be zero. For this reason the curves of the seat and back are of more importance than tilt; particularly is this true of the seat. Until reliable measurements confirm or disprove them, the following rules may be used as a guide:

1. The difference in the height of the upper surface of the seat from the floor at the front and back edges varies with the depth of the seat at an approximate ratio of 1 to 16; i.e., to every inch the seat is deep, it should curve or dip down and back 1/16 inch. McKenzie gives this ratio 1 to 12.

2. The front one seventh of the seat should be horizontal and smoothly rounded off at the front so that there are no sharp edges to cut against the thigh or leg.

3. Just back of the front seventh of the seat there should be a pronounced but shallow dip which should continue as a gentle slope to the back edge; thus totaling the 1 to 16 ratio.

4. The seat should not turn up at the back as such a curve tends to slide the occupant forward.

5. The dip of the seat should be greater for overweight children and adolescent girls than for others.

The cramping effect on a child caused by a seat tilting too much is shown in Figure 2, on page 122.

No such rules can be proposed to guide one in the selection of a chair back. Generally, it should tilt back at a ratio of 1 to 12 on the basis of a somewhat continuous circle. There should be no forward curve at the lower edge. The chair back should be slightly concave up to the lower edge of the shoulder blades where it should stop or else have a special, sharp backward curve that clears the shoulder blades. The height of a chair-back to the shoulder blades is approximately two thirds to three fourths of the knee-height. A more careful study of this phase of classroom furniture is needed.

Desk Tops

The desk top should be amply large, of smooth hardwood, as maple or oak, and should have as much tilt up and forward from the distant edge as possible. The degree of slope of the desk top has been variously defined, from 0 to 75 degrees by Bennett for writing and reading, at 45 degrees by Dresslar, at 15 degrees by Freeman for writing, and at 1 to 6 by McKenzie. Gravity, however, has thus far seemingly limited the tilt for most purposes at not over 15 degrees, but this limitation should be overcome by a simple, mechanical device. So far, none has been offered that prevents the books from sliding off the proper position on the desk top that does not interfere with the arm, but such device is possible and should be made. The purchaser of desks should insist on the greatest slant obtainable to about 45 degrees if the book-holding difficulty can be overcome. The height from the floor should be determined with regard to the height of the seat, not vice versa. Table XVII gives this relationship. *There is no uniform relationship between knee-height and elbow-height that meets all conditions as shown by Tables V-A and V-B, but there is a high degree of correlation.*

Desks adjustable in seat-height are commonly made in three sizes and nonadjustable desks are usually made in six sizes, designated A, B, and C, for the adjustable and 1, 2, 3, 4, 5, and 6 for the nonadjustable, the largest size being A or 1 and the smallest C or 6. The seat-heights for any particular size vary according to make of desks or manufacturer's ideas of sizes. This can be verified by examining the seat-height and desk-height distributions as given in school-furniture catalogs.

Calculations involving the measured knee-heights of the 1493 children in various schools indicate the need of a better seat-height distribution. Table XVII gives two seat-height distributions that most nearly fit all the children measured in this investigation and the corresponding desk-height, together with the per cent of each that is needed.

TABLE XVII

Seat-height in Inches	Desk-height in Inches	Difference for Thigh and Books	Per cent Accommodated (combined)	
	(Six-Size Distribution)			
12.25	21.25	9.00	12	
13.25	22.75	9.50	19	
14.25	24.50	10.25	19	
15.25	26.00	10.75	23	
16.50	28.00	11.50	17	
18.00	29.50	11.50	6	
10.75	19.50	8.75	4	(Kindergarten)
	(Eight-Size Distribution)			
10.75K	19.50	8.75	4	
12.25	21.75	9.00	7	
13.00	22.50	9.50	11	
13.75	23.75	10.00	19	
14.75	25.00	10.25	20	
15.75	26.50	10.75	19	
16.75	28.25	11.50	14	
18.00	29.50	11.50	6	

Attention is called to the fact that the steps or intervals between sizes is not regular, but progressive for the smaller children. It is to prevent small children with short thighs from having to sit in equal or greater angles and therefore more tiring positions than larger children having longer thighs. That is, if the difference between each two consecutive seat-heights were the same for all sizes, we would have small children seated in a relatively greater strain than the larger children because of the greater angles at the hips and knees. This can be better shown by the following chart.

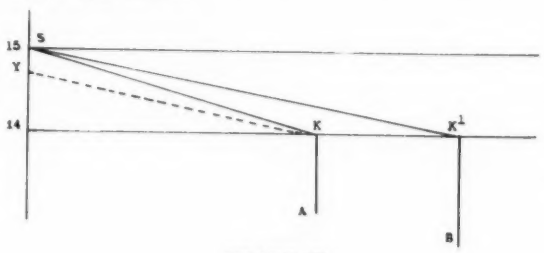


CHART V.

Let *S* represent the seat, *K* and *K'* the knees, and *A* and *B* the feet of the two children, called *A* and *B*. For geometrical reasons,—

Angle *AKS* is greater than angle *BK'S*, and angle *14K15* is greater than angle *14K'15*.

Similarly, when *S* was at *14*, the angles *AKS* and *BK'S* were equal. Raising the seats of both A and B the same amounts result in a greater angle at A's knee than B's knee because A has a shorter thigh. (*SK*) A also has a greater angle formed by the body and thigh. To maintain a balanced relationship between A and B and thus prevent the smaller child being overtaxed physically, it is necessary to keep *KS* and *K'S* parallel. *Y* represents the point to which seat (*S*) of *KS* should be raised to maintain this parallel relationship. This indicates clearly that the seat-height distribution of pupils' desks should not be in regular intervals.

By referring to the seat-height distributions in leading manufacturers' catalogs, it can readily be seen that little consideration has been given to the graduated step in seat-height distributions.

Seat- and Desk-Distances

Another factor in seating proportions not given due consideration is the distance between the seat and desk. Ordinarily there should be an average minus distance of 1½ inches, i.e., the desk top should overhang the seat edge that much. The fact is that the distance between the seat and desk varies according to the depth of the seat from the front to the back edges, according to the size of the seat and desk, and according to the size of the child to use it. This latter cause of variations is the most important and for that reason desks having a plus-and-minus adjustment are desirable. However, desks having no spacing adjustment, especially the stationary desks, can be arranged so as to eliminate much bad posture among school children at study. Pertaining to the spacing between desks, much misleading information can be found in school furniture catalogs, as "distance from back to back 30 inches, etc." Spacing should be measured from the center of the back rest to the near edge of the desk top and should be equal to the thickness of the child's body at the sternum plus 1½ to 3 inches. Based on averages, Table XVIII is given as a substitute aid in spacing seat and desks.

TABLE XVIII

Showing the distance apart to place desks and seats for children of various ages. (Grade-entry ages used)

Age	Space Inches
6½	9.00
7½	9.25
8½	9.50
9½	10.00
10½	10.50
11½	11.00
12½	11.25
13½	11.50
14½	11.75
15½	12.00
16½	12.25
17½–18	12.50
18½ up	12.75

The calculations for spacing in the above table assume that both the seat and the desk are at the correct vertical heights, that the seat depth is approximately .85 of measured knee-height, and the desk-top width is equal to the length of the forearm and hand. If a child is extra fleshy, add one-half inch; if it is very slender, subtract one half to one inch. If the seat and desk are too high for the child, they should be brought closer together and, on the other hand, if too small for the child, they should be farther apart. This latter allowance in spacing should never be resorted to as it is unfair to compel a child to sit for hours in a seat not suited to his size.

Child Health and Seating

The relationship of child health to good seating can best be introduced by calling attention to conclusions 8, 9, 10, 14, 16, 17, and 18 in the summary of the findings of this investigation.

The conclusions given in 14, 16, 17, and 18, in part, are admittedly contrary to present practices and are based on insufficient evidence to be as conclusive as others made in this investigation, but they certainly indicate the need of further attention and study of these hygienic problems. Attention is called to the diagramatic posture sketches of two actual classroom situations found during the investigation. The boy was sitting on an old, obsolete iron desk of which the seat-arm hinges had become loose and worn, allowing the seat to drop down at the front edge instead of tilting up. There were a number of smaller children sitting on similar seats in a half standing or bracing posture to keep themselves from sliding off on the floor. The second posture figure is that of a girl just at the threshold of adolescence. The desk she is using is a recent make of steel construction. The tilt of the seat is by far too much, forcing her to sit in a wedged condition. A number of these desks were examined and the seat-tilt measured, showing a variation of from less than an inch in a few instances to over three inches in others. This is a typical example of irregularity of pattern in desk construction. Such variations in seat tilt from the normal pattern is due to faulty hinge construction more than to anything else. The iron desks were old, probably used by some of the fathers and mothers of the children then using them, but the steel desks had been bought just the year before. In either case the posture was bad and the children were being subjected to physical injuries that might handicap them for life. No considerate superintendent or school board would tolerate such conditions in their schools. Only green-back-eyed misers permit such classroom discomforts which can be remedied at little ex-

(Continued on Page 120)

Budget Procedure in a Large City

Edward A. Fitzpatrick, Ph.D.

I was asked to discuss the budget procedure in a large city, with the following three questions as guides:

1. Where, if at all, do you feel that our present budget procedure fails to utilize the information possessed by teachers, principals, and directors of special subjects?

2. What, if any, constructive proposals have you to make respecting our method of budget publicity?

3. What, if any, constructive suggestions have you to make with reference to the board's provision for making practical use of the information gathered during budget hearings and of following up its allotment of the budget with current comparisons of budget allowances with the work actually accomplished by different departments?

The result may be of interest to other cities, because they throw an interesting side light on the general problem of the relation of city governments and semi-independent boards of education.

The Fundamental Need of the Budget Procedure

The fundamental need in the budget procedure is not so much the improvement of the budget publicity or even the utilization of the practical experience of the teachers, supervisors, and administrators, as it is the making of the superintendent of schools, who is the executive officer of the city school system in a position to be the maker of the budget proposals. The budget will then become an expression of the educational program of the superintendent of schools. By putting this definite responsibility on the superintendent and giving him his opportunity for leadership, the problems of the utilization of the experience of the teaching and supervising force of budget publicity and all cumulative use of the information collected at budget time, both for further guides in program and for testing the program adopted in the budget, will be more definitely on the way to solution.

The Present Budget Procedure

The essential steps in the present budget procedure of a certain large city follows:

1. The superintendent of schools requested, about April 1, 192—, that the various administrative officers prepare their budget estimates for 192— and file them before May 15, 192—.

2. The bureau of finance prepared the basic information required in budgetmaking.

a) The number of people permanently employed on March 31, 192—;

b) Vacancies existing March 31;

c) Amounts needed to provide for increased register September following and during 192—;

d) Estimated shrinkages, accruals, and similar items.

3. Various heads of educational activities submitted by May 15, information on forms prepared by the bureau of reference, research, and statistics.

4. The bureau of reference, research, and statistics checked the figures for correctness.

5. Hearings were held by a committee consisting of:

The chairman of the board of education's budget committee.

The vice-president of the board representing the board of education's budget committee.

The superintendent of schools.

A representative of the city's board of estimate and apportionment.

A representative of the mayor and the commissioner of accounts.

The auditor of the board of education, adviser to the superintendent of schools.

These hearings extended from June 4 to the early days of August, meeting every morning (10–12) and afternoon (1–5) and frequently in the evening.

6. The board of education held a public hearing which about 60 people attended. This was in August.

7. On August 8, the board of education approved the budget.

8. In accordance with the law, it was filed with the board of estimate prior to September 1, 192—.

9. As thus presented to the board of estimate, the budget was passed without cut.

Opportunities for Improvement

By this procedure the board of estimate allowed the board of education for 192—, $100,610,189.14, inclusive of the state funds which amount to over $20,000,000. The procedure as a practical method of arriving at an agreement between the financial and educational authorities of the city is reasonably satisfactory, and with present personal relations, is likely to be so. But a budget procedure ought not to be based on personal relationships, nor should the mere fact of smooth procedure be determining. Elsewhere I have said:

"For intelligent decision on the budget proposals, the legislature will need a statement of social and economic conditions, a statement of the effectiveness of administrative experience in its relation to those conditions, the cost of governmental activity and a program for the coming fiscal period based on the social-economic conditions, administrative experience, and the cost data. A mere statement of figures in terms of organization units or objects of expenditures or even of departmental functions will not be sufficient for intelligent legislative budgetmaking, though it will be very helpful. The socio-economic background should be explicitly stated."[1]

In the budget procedure of the year under discussion, the following conditions offer opportunities for improvement:

1. The position of the superintendent of schools, the board of education, and the board of estimate, was not clearly defined as to authority or responsibility. The educational budget was made not by the superintendent of schools or by the board of education, nor by these agencies jointly, but by the cooperating extra-legal committee in which two representatives of the board of estimate and the mayor should act with the board of education's representatives.

2. There was and could be no consideration of the city's educational problem in its totality. Instead, procedure made the budget not a comprehensive consideration of the city's entire educational problem, but an independent consideration of the multiplicity of activities of the city school system.

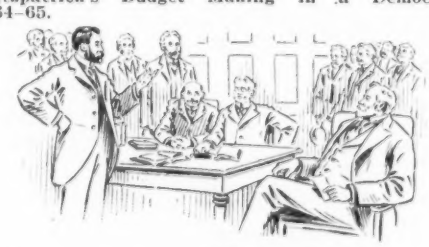
3. The cooperative budget committee sat in judgment on the various subordinates of the superintendent of schools who are in charge of the various educational activities. The superintendent was merely one member of this committee. He was not the proponent of an educational budget presented as an expression of *his* conception of the educational needs of the community.

4. A member of the board of education was required to give his time and to sit as a coordinate member of this cooperating budget committee with the superintendent of schools, thus confounding the function of a board member and putting upon him detailed responsibility which no member should be asked to assume.

5. The budget was a midsummer episode, not a matter of definite constructive work the year round, therefore its information was not cumulative.

6. The budget was not definitely tied to a specific educational program.

[1] Fitzpatrick's Budget Making in a Democracy, pp. 64–65.



A Suggested Procedure

1. Has fundamental educational and statistical information been prepared by a central agency acting directly for the superintendent of schools and under his direction.

a) This would require the designation of a budget officer with a competent clerk who, while independent of the bureau of reference, research, and statistics, would utilize its information and facilities. He would make year-round continuous and cumulative study of educational activities, in relation to service and to cost.

b) The bureau of finance of the board of education should prepare the information required, as at present, check it for correctness, and submit it to the superintendent of schools.

2. The superintendent of schools, in conference with the heads of the various educational activities should himself critically review the estimates, thereby making the budget as it goes from his office an expression of his educational program, based on the experience of the entire educational department, teachers, principals, supervisors and administrators.

3. The budget should be submitted with explanations, by the superintendent, to the entire board of education sitting as a committee of the whole and open to the public and then be referred to the board's budget committee.

4. The superintendent's proposed budget and program should then be submitted to the present cooperative budget committee for critical analysis by the board's own budget committee and representatives of the mayor and the board of estimate; but the superintendent will explain fully worked out proposals which he cannot indorse.

5. Public hearings should be held by the board of education before it has itself acted upon the budget.

6. The budget should be approved by the board of education to the extent that the information presented with the budget proves convincing.

7. The school budget should be submitted to the board of estimate with all necessary statistical information but with a statement *designed for public understanding of educational needs.*

8. The remainder of the budget procedure is in the hands of the board of estimate. There is no reason why the same conference committee should not go over the budget prior to public consideration as at present so that the things agreed to readily may not take up too much time, and attention may be directed to the points of disagreement.

Summary

In this procedure, special attention by way of summary may be called to the following points:

1. The superintendent of schools assumes a position in the budgetmaking process in conformity to his position as the chief executive officer of the school system as provided by law.

2. The budget proposals are the expression of the superintendent's educational policy and educational program expressed in financial terms.

3. The procedure adequately "stages" the educational and financial program in a way to secure public attention, and to have the spotlight placed on its constructive features.

4. The procedure provides for continuous and cumulative study throughout the year and from year to year of educational services and educational costs.

A Building and Janitorial Survey of the Los Angeles School Buildings[1]

A. S. Nibecker, Jr., Architect, Los Angeles Board of Education

In October, 1927, the Los Angeles board of education authorized Mr. W. E. Record, business manager, to make a survey of all school buildings and grounds in order to secure certain data useful to the maintenance and architectural divisions of the business department, and for the purpose of verifying the janitor allowances at the various schools.

The writer will outline briefly the manner in which the survey was made, after which he will give the results obtained and describe the methods used to keep the survey information up to date.

Organization of the Survey

The school district was divided into ten areas containing about forty schools each, and a field party of three men was formed for each area to take measurements of buildings and sites, and to gather the information about the construction of the buildings. A competent man trained in building construction or engineering work was placed in charge of each of these groups. He was made responsible for getting the information requested and for the correctness of the same.

An office crew was also organized, whose duties were to make calculations from the field sheets as turned in by the field groups and to properly list the data wanted. In having the calculations made in the office it was the idea to insure accuracy and to save time, as calculating machines were available in the office and the entire time of the field groups could be used in taking measurements and filling in the questionnaire sheets.

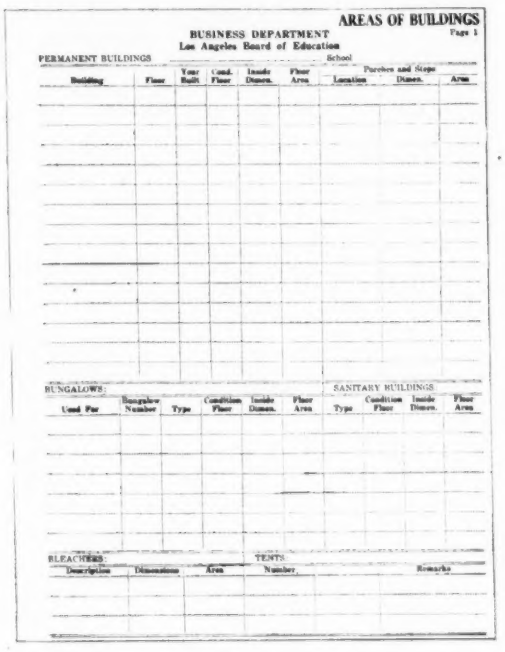
Over both the field and office crews was placed a skilled engineer who had been in the employ of the business department for several years and who was not satisfied with any results except the correct ones. He was quite familiar with most of the sites and the buildings and was thus able to catch many errors that would not have been apparent to one not familiar with the schools.

It was considered important that the information should be taken in an orderly manner so that the office crew could carry on their part of the work, to avoid the mistakes that were sure to occur if each party were allowed to use its own methods and to speed up the work. To gain this end all members of the survey groups held several meetings in the office and in the field where they were instructed how the data was to be secured and noted.

[1]Read before the California Association of Public School Business Officials, Los Angeles, March, 1929.

The Data Secured

Each school site in the district was examined in the following manner: For each structure on the site, no matter what its use a questionnaire, (Fig. 1) was filled out. This information gives the construction of the structure, its use, the year built, and the enrollment. There is a page of space for a sketch of the outline of the building, which is required to be made and dimensioned in the field, if the working drawings of the building are not available. Where working drawings were available an outline plan was made and dimensioned from the drawings, to avoid conflict at a later date due to any additions made to the building. The information on the form is valuable in the office of the architect, and saves trips to buildings when alterations are to be made or questions arise.


AREAS OF BUILDINGS

BUSINESS DEPARTMENT
Los Angeles Board of Education

Page 1

PERMANENT BUILDINGS — School

Building	Floor	Year Built	Cond. Floor	Inside Dimen.	Floor Area	Porches and Steps: Location	Dimen.	Area

BUNGALOWS

Used For	Bungalow Number	Type	Condition Floor	Inside Dimen.	Floor Area

SANITARY BUILDINGS

Type	Condition Floor	Inside Dimen.	Floor Area

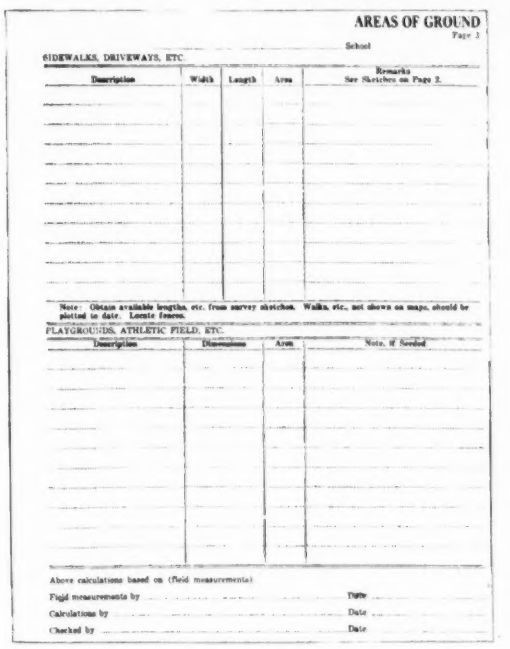
BLEACHERS

Description	Dimensions	Area

TENTS

Number	Remarks

FIG. 2 (PAGE 1)


AREAS OF GROUND

Page 3

School

SIDEWALKS, DRIVEWAYS, ETC.

Description	Width	Length	Area	Remarks See Sketches on Page 2.

Note: Obtain available lengths, etc. from survey sketches. Walks, etc., not shown on maps, should be plotted to date. Locate fences.

PLAYGROUNDS, ATHLETIC FIELD, ETC.

Description	Dimensions	Area	Note, if Seeded

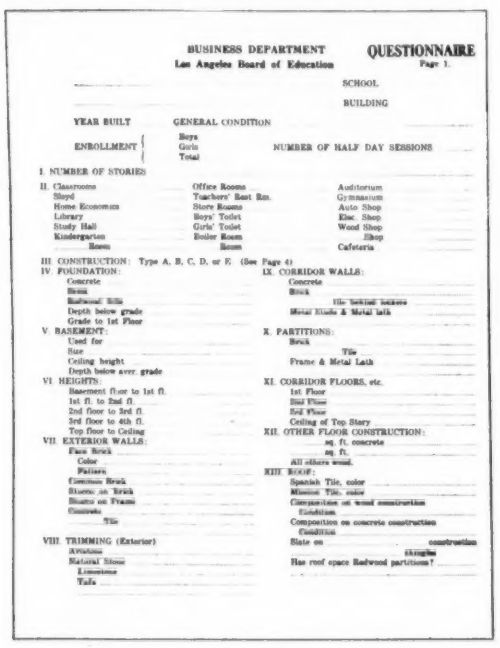
Above calculations based on (field measurements)

Field measurements by ..... Date .....

Calculations by ..... Date .....

Checked by ..... Date .....

FIG. 2 (PAGE 3)


BUSINESS DEPARTMENT
Los Angeles Board of Education

QUESTIONNAIRE

Page 1.

SCHOOL

BUILDING

YEAR BUILT

GENERAL CONDITION

ENROLLMENT: Boys / Girls / Total

NUMBER OF HALF DAY SESSIONS

I. NUMBER OF STORIES

II. Classrooms, Sloyd, Home Economics, Library, Study Hall, Kindergarten Room; Office Rooms, Teachers' Rest Rm., Store Rooms, Boys' Toilet, Girls' Toilet, Boiler Room; Auditorium, Gymnasium, Auto Shop, Elec. Shop, Wood Shop, Shop, Cafeteria

III. CONSTRUCTION: Type A, B, C, D, or E. (See Page 4)

IV. FOUNDATION: Concrete, Brick, Reinforced Rib, Depth below grade, Grade to 1st Floor

V. BASEMENT: Used for, Size, Ceiling height, Depth below aver. grade

VI. HEIGHTS: Basement fl.or to 1st fl., 1st fl. to 2nd fl., 2nd floor to 3rd fl., 3rd floor to 4th fl., Top floor to Ceiling

VII. EXTERIOR WALLS: Face Brick (Color, Pattern), Common Brick, Stucco on Brick, Stucco on Frame, Concrete, Tile

VIII. TRIMMING (Exterior): Wood, Metal, Natural Stone (Limestone, Tufa)

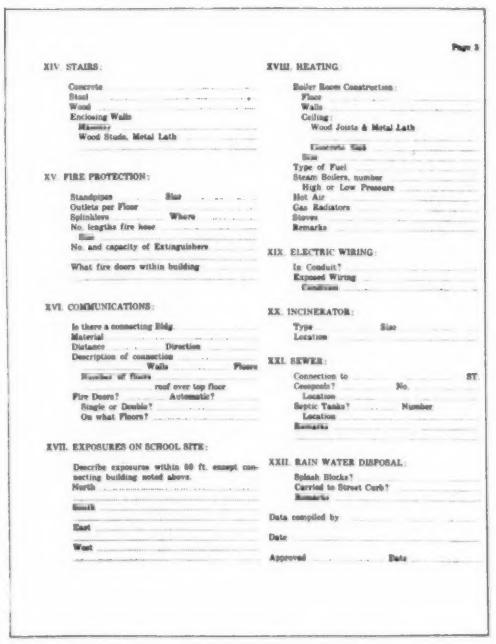
IX. CORRIDOR WALLS: Concrete, Brick (Tile, Terra Cotta), Metal Studs & Metal lath

X. PARTITIONS: Brick (Tile), Frame & Metal Lath

XI. CORRIDOR FLOORS, etc.: 1st Floor, 2nd Floor, Ceiling of Top Story

XII. OTHER FLOOR CONSTRUCTION: ..... sq. ft. concrete, ... sq. ft. All others wood.

XIII. ROOF: Spanish Tile, color; Mission Tile, color; Composition on wood construction (Condition); Composition on concrete construction (Condition); Slate on ..... construction (..... shingles); Has roof space Redwood partitions?


Page 3

XIV. STAIRS: Concrete, Steel, Wood, Enclosing Walls (Masonry, Wood Studs, Metal Lath)

XV. FIRE PROTECTION: Standpipes (Size), Outlets per Floor, Sprinklers (Where), No. lengths fire hose (Size), No. and capacity of Extinguishers, What fire doors within building

XVI. COMMUNICATIONS: Is there a connecting Bldg., Material, Distance, Direction, Description of connection (Walls, Floors, Number of floors, roof over top floor), Fire Doors? Automatic? Single or Double? On what Floors?

XVII. EXPOSURES ON SCHOOL SITE: Describe exposures within 50 ft. except connecting building noted above. North, South, East, West

XVIII. HEATING: Boiler Room Construction (Floor, Walls, Ceiling: Wood Joists & Metal Lath; Concrete Tank; Size; Type of Fuel; Steam Boilers, number; High or Low Pressure; Hot Air; Gas Radiators; Stoves; Remarks)

XIX. ELECTRIC WIRING: In Conduit? Exposed Wiring (Condition)

XX. INCINERATOR: Type, Size, Location

XXI. SEWER: Connection to ST., Cesspools? No., Location, Septic Tanks? Number, Location, Remarks

XXII. RAIN WATER DISPOSAL: Splash Blocks? Carried to Street Curb? Remarks

Data compiled by

Date

Approved Date

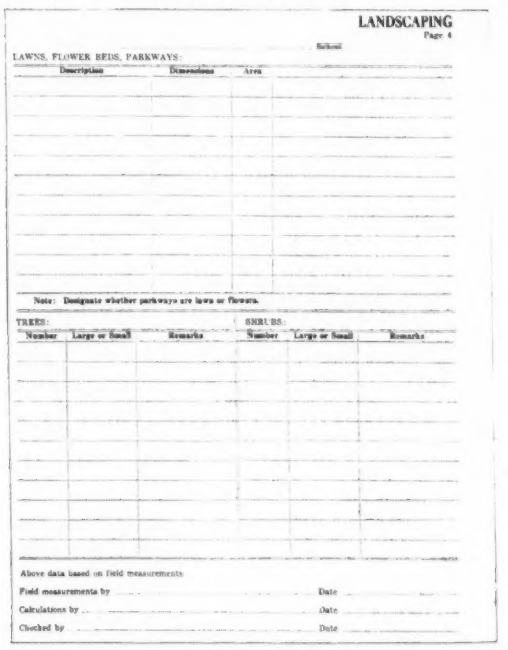
FIG. 1

Pages 1 and 3 of the questionnaire form. Page 2 is a blank for sketches and memoranda and page 4 contains definitions of the five types of building construction.

The yellow sheets, (Fig. 2) were used to gather information for janitor allowance. On the page marked "area of buildings" was noted the name of the building, the floors, such as first and second, the year built, the condition of the floors, and the inside areas of the floor. In taking the dimension, no account was taken of interior partitions; the measurements were taken from the inside of the exterior walls. The floor areas, as well as all other areas, were figured in the office from the dimensions sent in by the field groups. Porches and steps were kept separate from the interior areas of the buildings, as they are more often changed. Similar information was noted for bungalows, sanitary buildings, bleachers, and tents.

School Grounds Surveyed

In this form under the heading of "areas of ground" space is provided for noting the sizes of sidewalks, drives, playgrounds, and athletic fields; on the opposite page is a sketch of the entire site with the outline of all buildings,


LANDSCAPING

Page 4

School

LAWNS, FLOWER BEDS, PARKWAYS:

Description	Dimensions	Area

Note: Designate whether parkways are lawn or flowers.

TREES:

Number	Large or Small	Remarks

SHRUBS:

Number	Large or Small	Remarks

Above data based on field measurements

Field measurements by ..... Date .....

Calculations by ..... Date .....

Checked by ..... Date .....

FIG. 2 (PAGE 4)

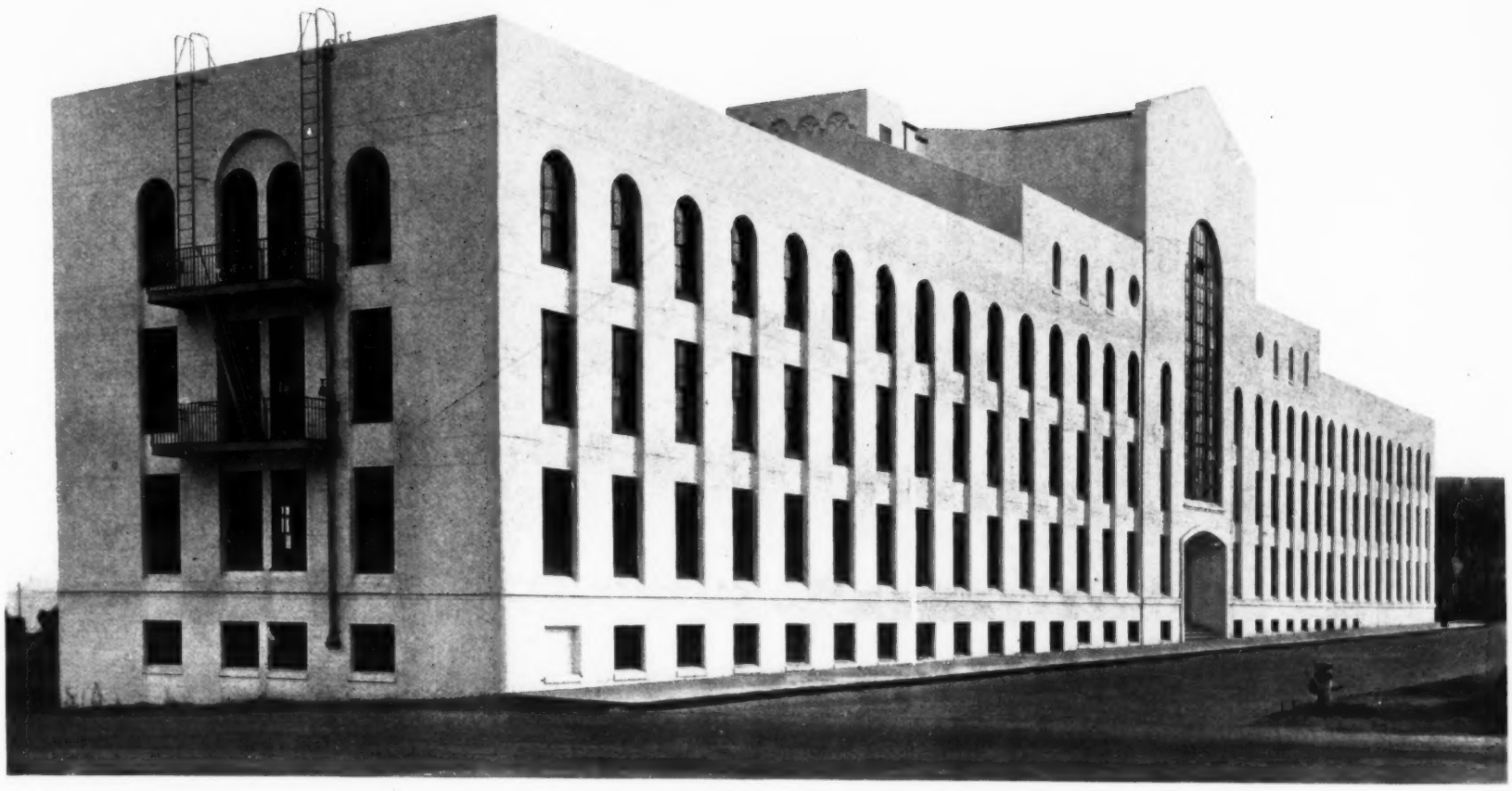
Permanent Record Form for areas of buildings used in computing janitors' salaries. Page 3 is squared for scale sketches of school grounds.

planting, walks, and drives with main dimensions given. Each building was given its proper number corresponding to the number for that building shown on the questionnaire sheets.

On the page marked "landscaping" are found spaces for information about lawns, flower beds, parkways, trees, and shrubs.

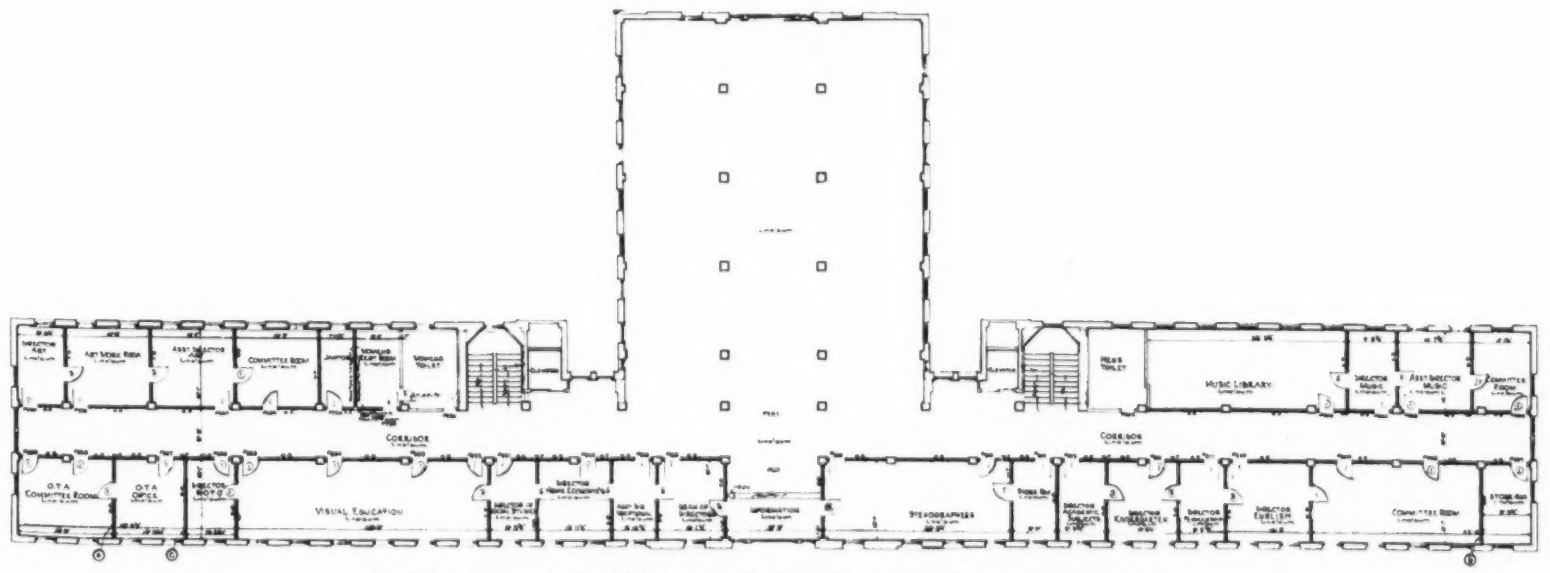
All of the foregoing forms are used for obtaining information in the field only, and are carefully filed for reference and revision as changes occur. The "summary" form (Fig. 3) contains in condensed space a summary of the information gathered, one or more such sheets being used for each school. Provision has been made for keeping this sheet up to date by providing space for changes as they occur.

(Continued on Page 137)

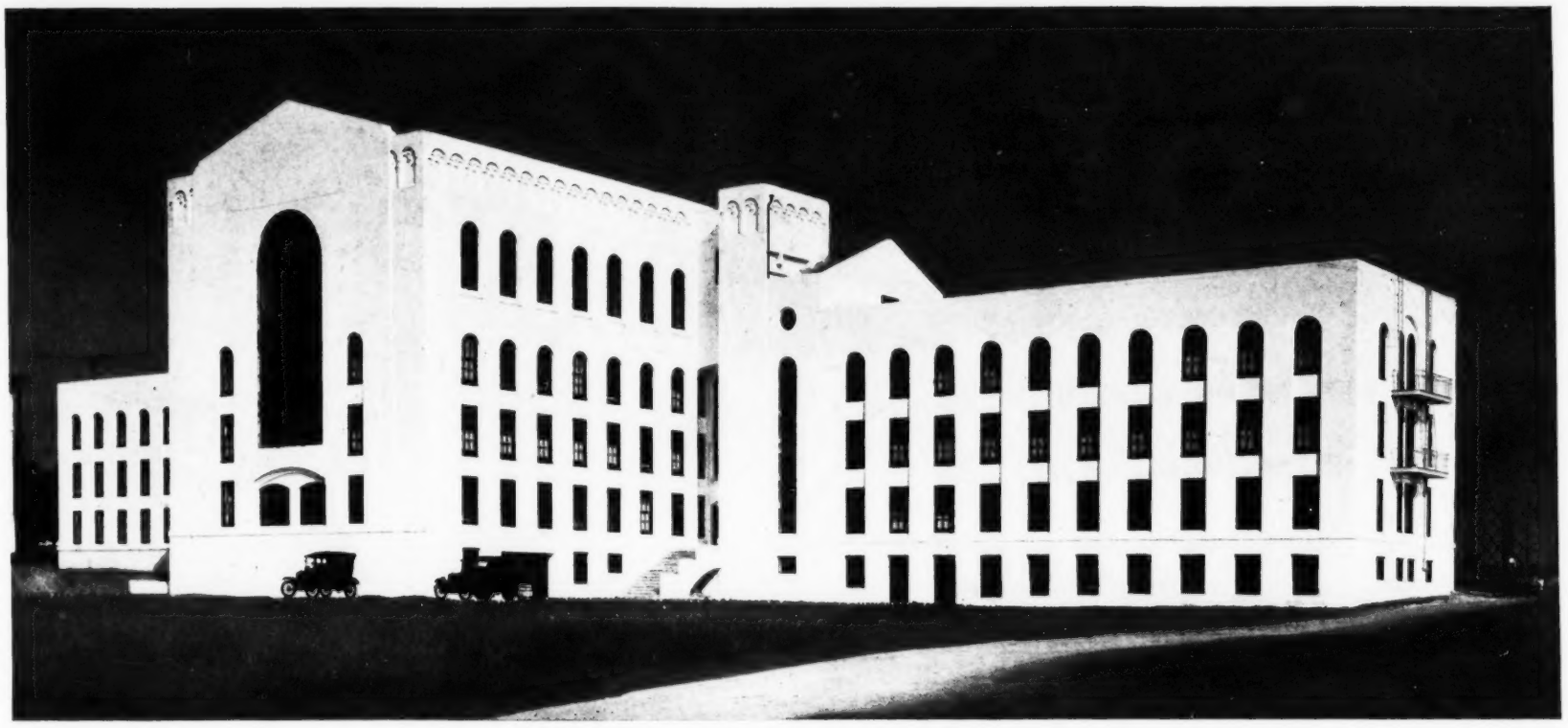


FRONT VIEW, SCHOOL ADMINISTRATION BUILDING, OAKLAND, CALIF.
William Knowles, Architect, Oakland, Calif.
The back of the building overlooks Lake Merrit and the city's skyline beyond.

THIRD FLOOR PLAN



SECOND FLOOR PLAN, SCHOOL ADMINISTRATION BUILDING, OAKLAND, CALIF.
William Knowles, Architect, Oakland, Calif.



SCHOOL ADMINISTRATION BUILDING, OAKLAND, CALIF.
William Knowles, Architect, Oakland, Calif.
A long L jutting out at the back of the structure houses offices on the first and third floors, the professional library on the second, and the assembly hall on the fourth.

OAKLAND'S NEW ADMINISTRATION BUILDING

With a view from its windows that commands a wide sweep of the city's skyline beyond the blue waters of Lake Merrit and a ridge of green hills in the distance, the new administration building of the board of education in Oakland, California, has a location that is noteworthy in two respects: its central position and the beauty of its surroundings.

Located in the heart of the city, the imposing-looking white structure adjoins the municipal auditorium and the public health center to complete the group of buildings in that vicinity dedicated to community service.

Erected at a cost of $240,000, the new home of the board of education was financed from the sale of down-town school property. The building was designed by William Knowles, and the construction work was completed in March, 1929. It contains a total of 705,500 cubic feet of space.

Description of the Building

The building contains four stories, in addition to a basement of full ceiling height, which is used for a boiler room, a permanent filing room for official records and correspondence, and a general supply storeroom for the whole school system.

On the first floor, the offices of the business department are located. An information desk is located at the right of the entrance. There are two automatic elevators, one on the left, and the other on the right, of the corridor which runs the full length of the building.

A board of education room, with a seating capacity of 150 persons is located at the extreme end of the corridor on the right of the first floor.

Offices of directors and supervisors of special subjects are found on the second floor. Here also are the professional library and exhibit hall, and the visual education center.

The superintendents have their offices in a suite on the third floor. Adjoining their offices is a committee room for meetings of the superintendents' council. A large workroom where their clerks and secretaries are located is reached by crossing a narrow corridor from their offices.

The research and guidance department and the attendance department have suites of offices on this floor. There are committee rooms on the third floor sufficient to care for all the professional meetings of the department, with the exception of the general teachers' meetings.

An assembly hall, with a seating capacity of 600 persons is located on the fourth floor. Adjoining it are a kitchen and lunchroom for the use of employees in the building.

Restrooms for women employees are to be found on each floor. The rooms are furnished with wicker furniture and equipped with cots and first-aid cabinets.

Type of Construction

Concrete construction has been used throughout the building. Walls, floors, ceilings, stairs and elevator shafts are made of this fireproof material.

Battleship linoleum is used as a covering for the floors of the entire building. The walls are tinted white, and the woodwork is Oregon pine, stained and varnished.

Partitions between the rooms and the corridors are panelled and movable. The first four feet are made of wood and the remainder of glass. For the partitions facing the corridors, frosted glass is used, and between the offices in a suite, clear-glass partitions are to be found. There are no nails in the partitions; instead, they are screwed together and are easily movable.

The building contains a low-pressure steam direct system.

Location is Central

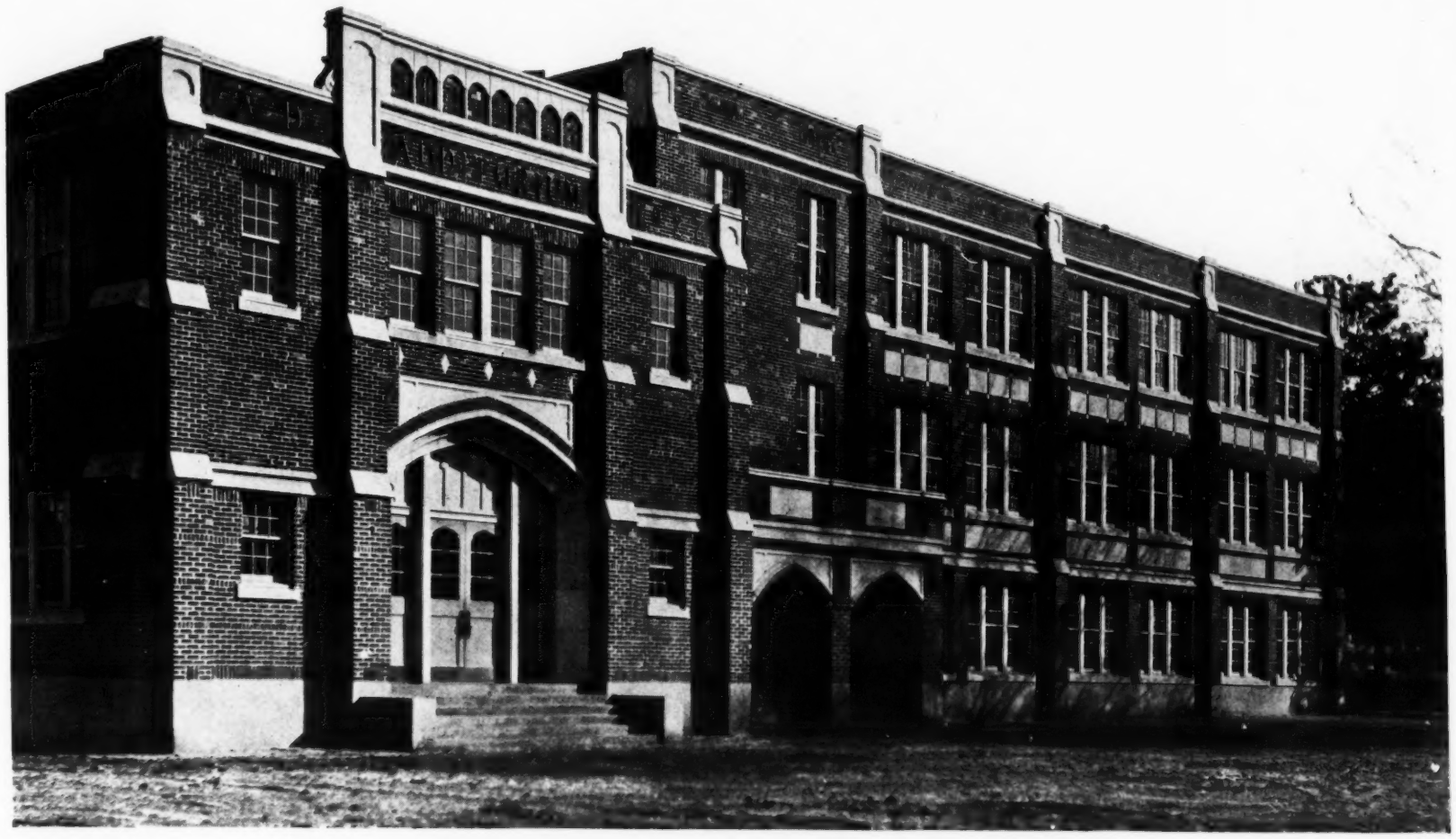
One requirement for an office building to serve a city school system with 55,000 pupils and 2,000 principals and teachers is that its location be easily accessible. This need, the Oakland board has met by providing a site on the edge of the business district, and apart from the beaten thoroughfares to make adequate parking space possible.

In addition to this, parking facilities on the site have been planned to care for the cars of employees, and thus leave the streets surrounding the structure free for the use of visitors' machines.

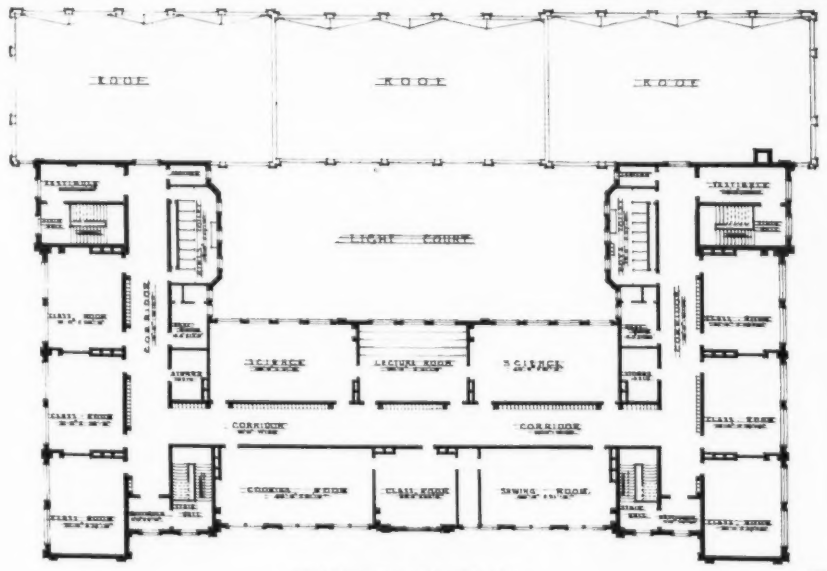
Housed in a structure that is an office building, up-to-date in every way, providing adequate meeting places for groups at work on professional and community projects, the board of education of Oakland can now serve its citizens more effectively than at any time in the past.

The building was erected at a total cost, excluding equipment, of $217,166. The building contract was $171,239, and the cost of the ventilation, and plumbing amounted to $21,700. Based on a cubage of 705,500, the building was erected at a cost of $0.308 per cubic foot. The cost of the elevators was $7,730, and the cost of installing battleship linoleum was $9,668.

FIRST FLOOR PLAN, SCHOOL ADMINISTRATION BUILDING, OAKLAND, CALIF.
William Knowles, Architect, Oakland, Calif.

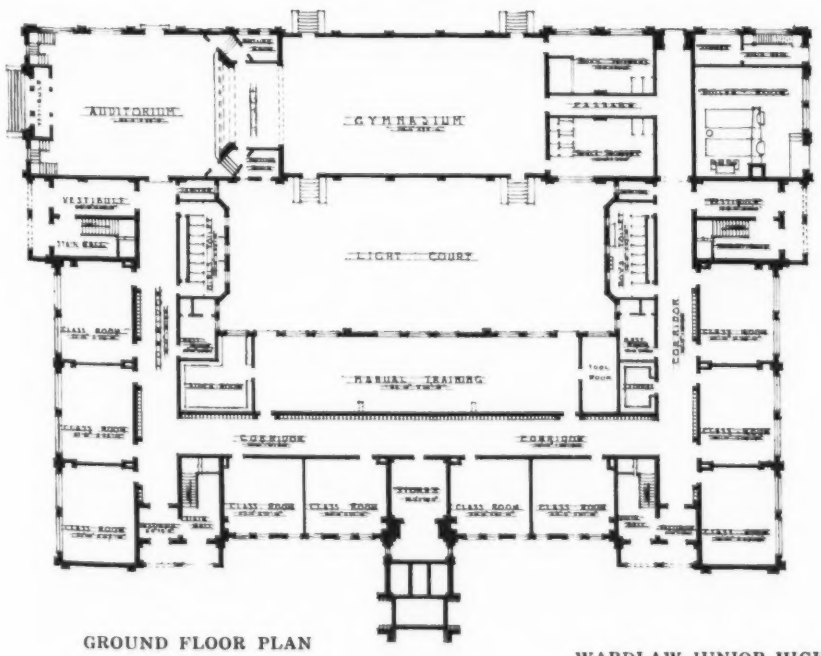


ENTRANCE TO AUDITORIUM, WARDLAW JUNIOR HIGH SCHOOL, COLUMBIA, S. C.
James B. Urquhart, Architect, Columbia, S. C.

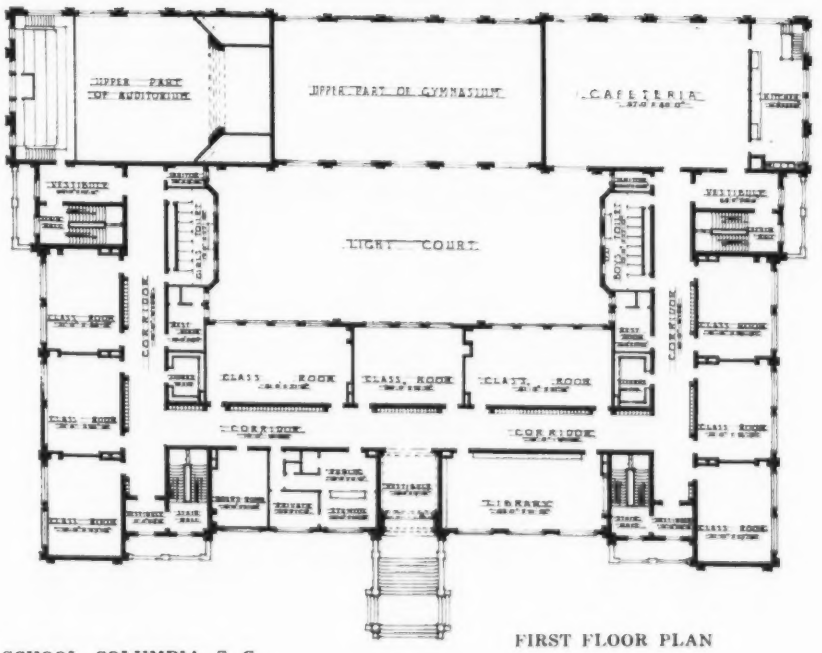


SECOND FLOOR PLAN

CAFETERIA

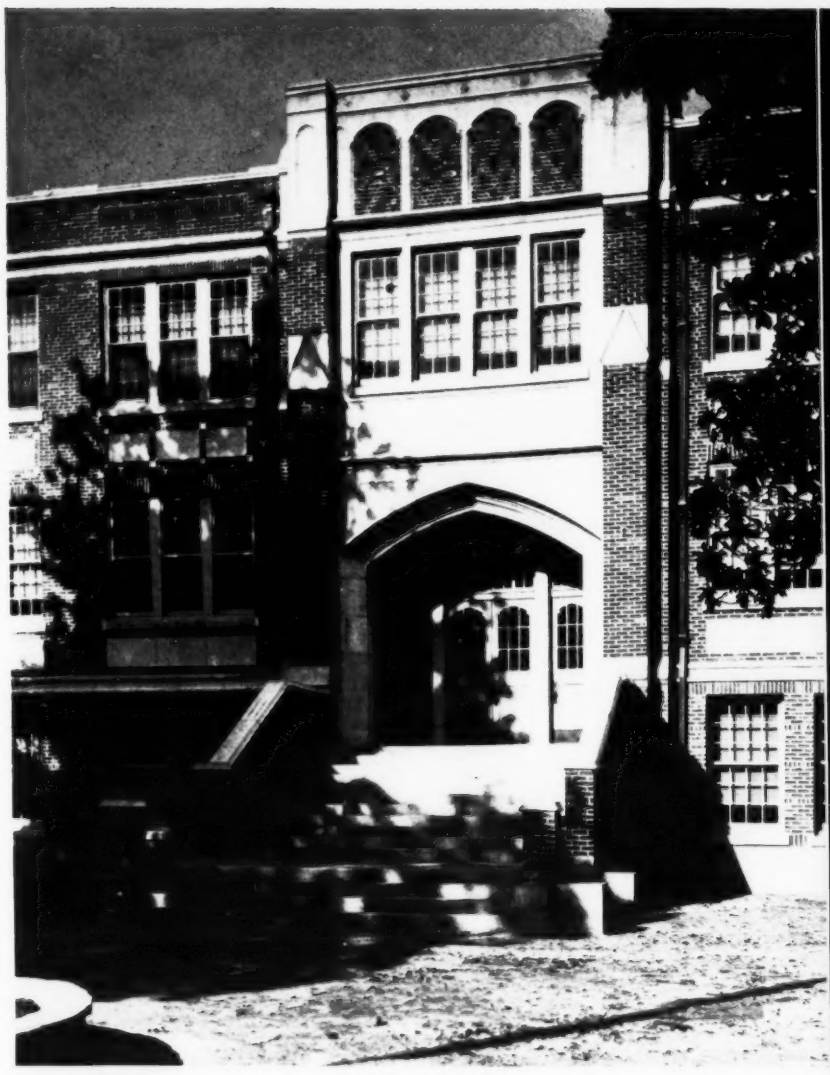


GROUND FLOOR PLAN

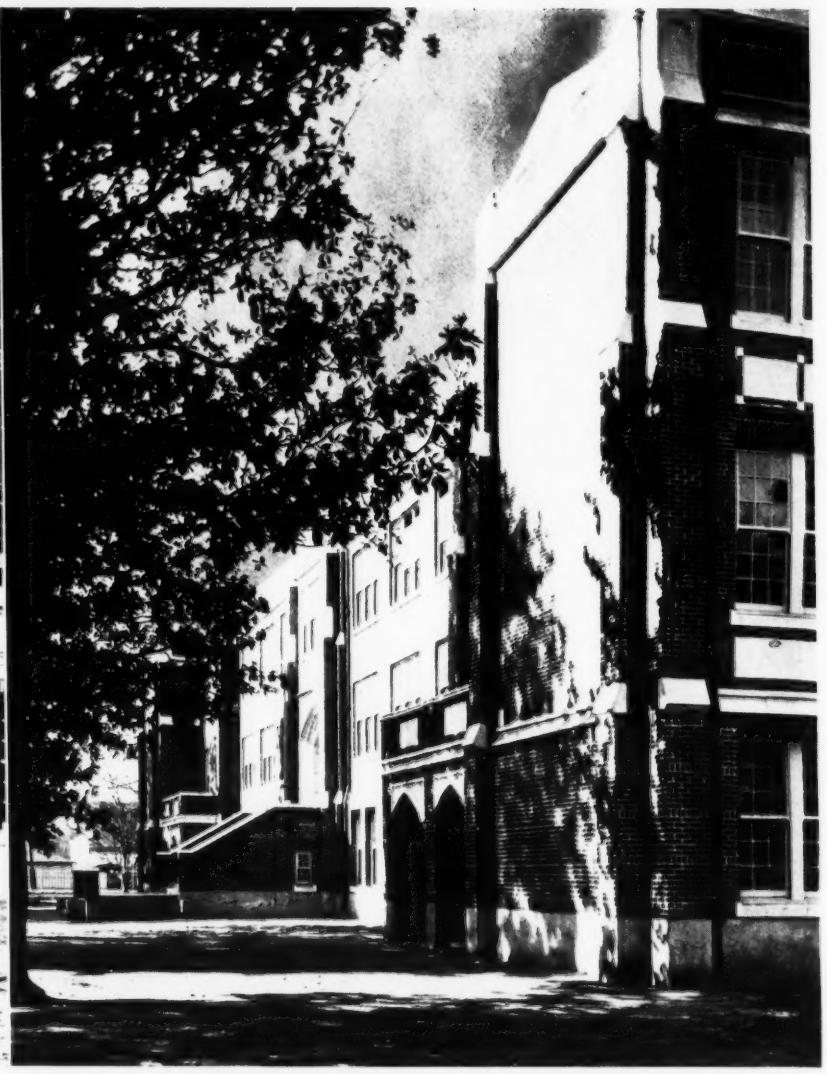


FIRST FLOOR PLAN

WARDLAW JUNIOR HIGH SCHOOL, COLUMBIA, S. C.
James B. Urquhart, Architect, Columbia, S. C.



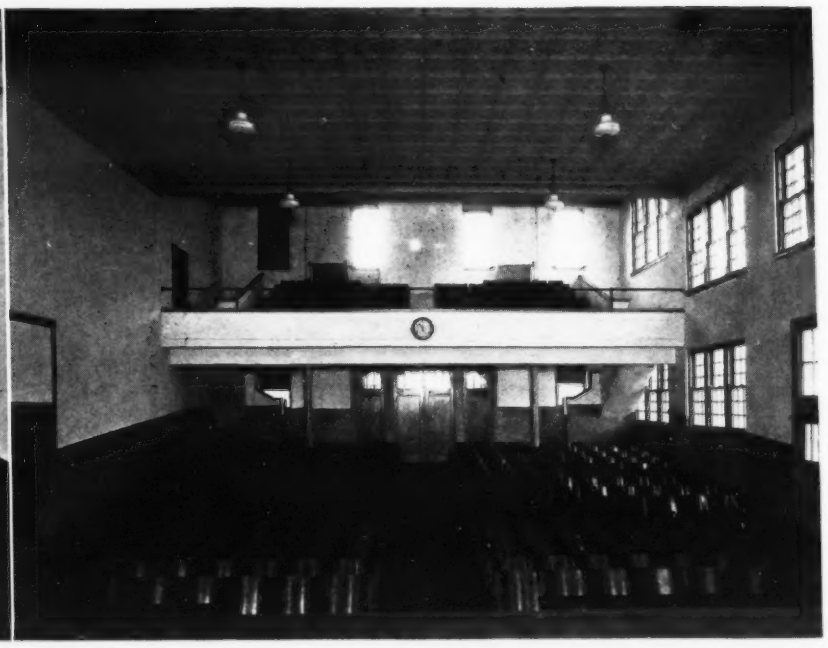
ENTRANCE



DETAIL OF THE FRONT FACADE

WARDLAW JUNIOR HIGH SCHOOL, COLUMBIA, S. C.
James B. Urquhart, Architect, Columbia, S. C.

DOMESTIC SCIENCE DEPARTMENT



AUDITORIUM

WARDLAW JUNIOR HIGH SCHOOL, COLUMBIA, S. C.
James B. Urquhart, Architect, Columbia, S. C.

NEW RULES AT EAU CLAIRE, WIS.

A new regime has been created in school-board affairs at Eau Claire, Wis., with the removal of the recent deadlock, which has resulted in the reappointment of Supt. Paul G. W. Keller, and the establishment of some new, progressive policies for the conduct of school-board business.

It appears that the real issue in the controversy was the elimination of a two-thirds rule for the control of school-board procedure, and was not due to any failure in the superintendent's administration. The cause of the trouble was a two-thirds rule which, during a period of forty years, had given a reactionary group control of the board's affairs. This group, it appears, did not favor progressive measures, or at any rate, did not wish to pay for them. The fact that the superintendent naturally worked with the majority, which majority elected their choice as president a year ago, engendered the opposition of the minority.

The trouble came to a head when Superintendent Keller took his stand with the majority faction for the elimination of the old rule, and for the establishment of a new progressive policy which should raise the schools to a new and higher plane. At the election, Superintendent Keller's administration was approved and the opposing candidate was defeated.

At the meeting following the election, a new set of rules was adopted which entirely eliminated the old rule and eliminated the cause of the lack of harmony within the board. The rules read as follows:

"The board may, at any meeting, carry, pass, or adopt any motion or resolution coming before the board, whether for appropriation of money, or otherwise, by a vote of a majority of all the members. In voting upon any motion or resolution involving an expenditure or appropriation of money, a roll call of the members shall be had and the vote taken shall be recorded by the secretary.

"The rules of the board may be changed, amended, or rescinded by a majority vote of all of the members, at any regular or special meeting; provided that written notice of any change, amendment, modification, or rescision of the rules shall be presented to each member by the secretary at least thirty days prior to any action thereon by the board."

The board, by a six-to-one vote, reelected Mr. Keller and fixed his salary at $5,000 per annum.

THE WANDSWORTH TECHNICAL INSTITUTE, LONDON

John Y. Dunlop, Esq.

It is pleasant to find a school building like the Wandsworth Technical Institute, which has adopted the homelike brick as the dress in which it shall look at the world. It is pleasant also to pass through the corridors, recitation rooms, shops, and laboratories of a building which as units and in combination represent the solution of a series of problems involved in fitting a schoolhouse to a definite educational program, without failing to face the difficulties of a limited site, a narrow and noisy street, and extremely limited financial resources.

The new Wandsworth building is constructed of brick. The increasing use of central heating and the adoption of measures for the elimination of smoke has made brick one of the popular materials for the public buildings of London. The building has all the charms of "early brickwork" and combination of directness and durability shows the possibilities of brick as a building material. The building which was completed late in the fall of 1927, shows the results of adaptability and good quality of materials which should prove a source of inspiration to the occupants, both pupils and teachers.

The plan of the building has been adapted to a restricted and somewhat narrow site. The entrance is on the ground level, with the main corridors leading to the assembly hall and gymnasium. It will be noticed that the floors have been carefully arranged so that recitation rooms, the library, and other rooms which require quiet for study and classwork, have been placed away from the street so that traffic noises will not disturb teachers and pupils.

The entire building is faced with madrine-pressed face brick. These are laid with full $\frac{3}{8}$ in. head and bed joints, slushed in solid, and raked out $\frac{1}{2}$ in. deep, and carefully pointed. All piers in walls and interior are of common brick, with the floors laid in solid concrete and covered with zeta wood flooring. The roof is built in couples, with 8 in. by $\frac{7}{8}$ in. half checked at the joints. Over the boarding is laid double-ply roofing felt, and over this is placed a covering of red clay tiles.

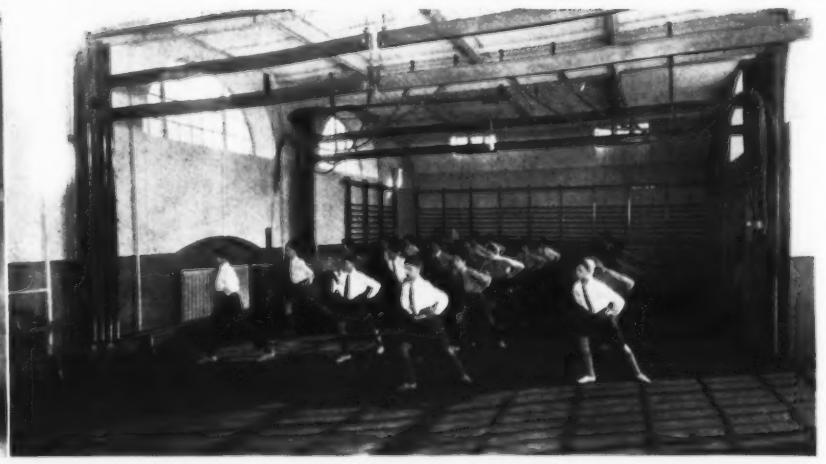
From the ground floor, access is provided to all parts of the building, and control is centered in the administrative offices and the principal's

WANDSWORTH TECHNICAL INSTITUTE, LONDON, ENGLAND
G. Topham Forrest, Esq., Architect, London County Council.

CORNER OF NEEDLEWORK ROOM

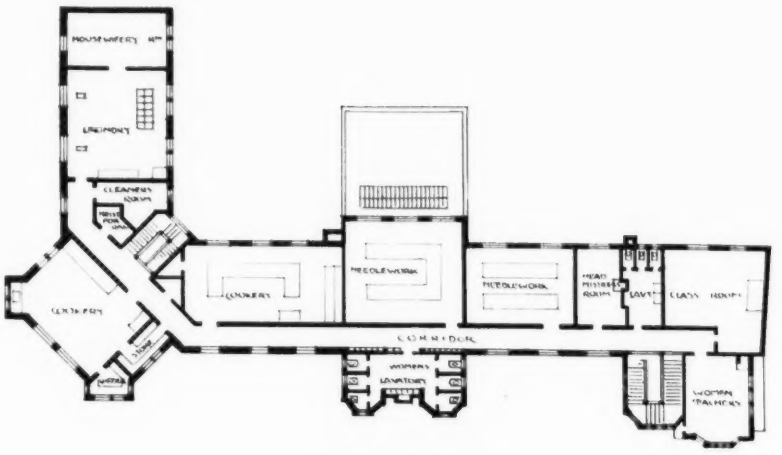
THE COOKERY ROOM

ENTRANCE HALL

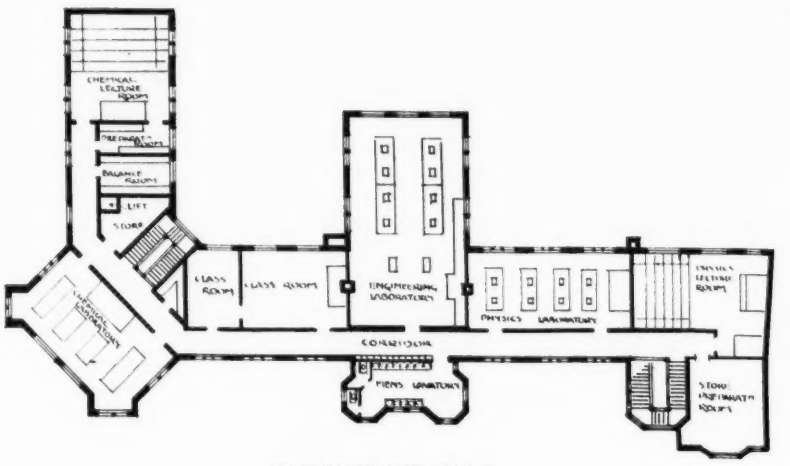


CORNER OF THE GYMNASIUM

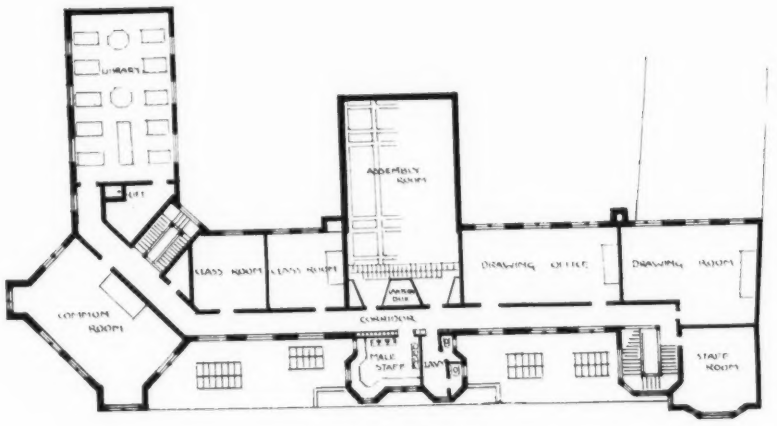
INTERIOR VIEWS OF THE WANDSWORTH TECHNICAL INSTITUTE, LONDON, ENGLAND
G. Topham Forrest, Esq., Architect, London County Council.



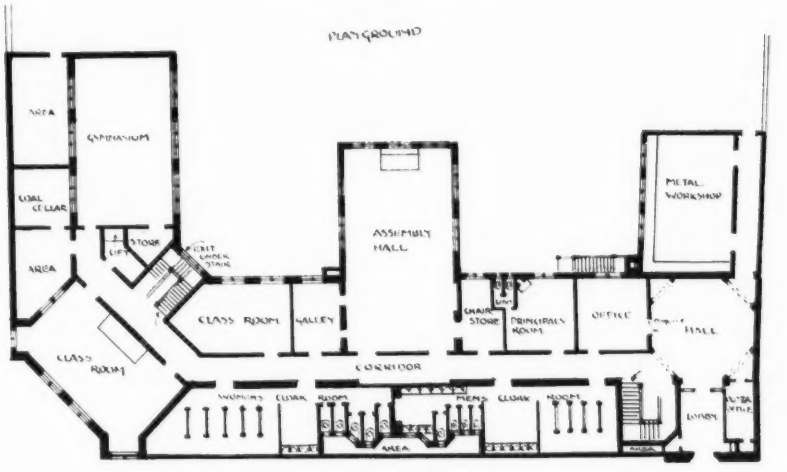
THIRD FLOOR PLAN



SECOND FLOOR PLAN



FIRST FLOOR PLAN



GROUND FLOOR PLAN

WANDSWORTH TECHNICAL INSTITUTE, LONDON, ENGLAND
G. Topham Forrest, Esq., Architect, London County Council.

office. Adjoining the assembly hall is a gallery, with hatch services to the hall. The other rooms on the ground floor are the metal-working shop and two classrooms. The boiler room and fuel room are located in the basement.

On the first floor of the building are a library room, a drawing room, an office, and two classrooms. A gallery is located on the first-floor level, at the rear of the assembly hall, and is so arranged that the projection room for the projection lanterns is centrally located.

The second floor is occupied entirely by the laboratories for chemistry, physics, and engineering work, each with its own lecture room.

Rooms for laundry work, household arts, and sewing are provided on the third floor. Conference rooms for girl students and women teachers are also provided on this floor.

The central projecting block of the building is on the main front, while the two staircases which connect all the rooms are equally well expressed on the elevations. One of these adjoins the entrance wing, while the other is at an angle formed by the front and return front.

All the classrooms and working rooms are provided with blackboards and ample cabinet facilities. All doors swing both ways and are glass paneled, so that they open into wide and spacious corridors.

In the selection of the material for the interior finish of the building, particularly the floors and walls of the entrance, and the corridors, great care has been taken to provide a material which will resist hard usage for combined day and evening-school purposes. This insures an interior finish which is both simple and efficient in service. The walls in general are unplastered and are simply treated in water color. Tile dadoes are provided in the cooking and laundry departments, in the corridors, and staircases.

The floors, walls, and trim are of materials which are easily washed and which can be kept clean and sanitary. All floors are fireproof, and in many of the rooms the main steel construction has been left exposed and painted. A similar plainness is noted in the case of the staircases, where all the construction is visible, without being ugly or obtrusive, which affords an object lesson for young craftsmen on the second floor.

Toilet facilities are located on each floor. Heat is provided by a low-pressure steam central heating plant. Electric current is provided for light, and gas is used for the cooking rooms.

An electric elevator connects the ground-floor service with the assembly hall to the third-floor cooking departments, so that meals may be served as occasion requires in the main hall.

The playground in the rear of the building is arranged to insure the maximum benefits from the trees and shrubbery which belonged to an old town house on the site.

A NOTABLE COUNTRY SCHOOL

A one-teacher country school, planned for a broad program of educational and community service, designed to harmonize with the buildings of a fine country estate, and built of the best permanent materials—such is the Nina D. Scripps School near Orion, Michigan.

The Scripps School is in the open country about four miles south of Orion, and is deservedly considered as one of the most beautiful one-room schools in the state. The building was planned and erected at the suggestion of Mr. W. D. Scripps, publisher of the Detroit News, who paid for all but a very small proportion of the structure.

The site, which adjoins some of the buildings of the Scripps farm, has a beautiful lake at the back. The building is a free adaptation of the modern English rural style and is constructed of field stone, picked up in the vicinity. The roof is of red tile; the windows are of the Hope English casement style; and the columns and floor beams are of structural steel. All of the sheet-metal work is of copper.

The building contains one floor and a well-arranged basement. A flight of field stone steps leads to the stone-paved entry, from which entrance is gained to the schoolroom. At the back of the main classroom a room is equipped with workbenches and simple tools. The room is mostly used evenings by the Handicraft Club, composed of boys and girls of the school, working under the direction of the county agent in charge of boys' work. At the front of the room there is also a small section devoted to home economics where the women and girls of the district meet evenings under the direction of the county agent for girls' work. The room is equipped with electric stoves and cooking utensils, and is frequently used for the serving of lunches at community gatherings. A teachers' restroom, a coatroom, and toilets for boys and girls complete the main floor.

The basement contains, in addition to the heating plant, a large playroom for use in inclement weather.

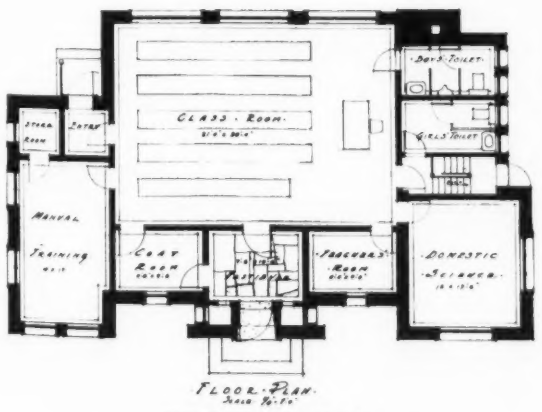
The exterior finish of the building is in clear cypress, with doors of heavy laminated birch. The classroom finish is in plaster, with quartered white oak trim. The remaining wood trim is birch. The walls of the rooms are painted in flat oil colors, while the toilet rooms are finished in enamel. The floors of the instruction rooms are covered with battleship linoleum over hardwood, and the toilet-room floors are ceramic tile, with white tile base. The seating of the classroom is of the modern movable type, and there is a paneled chalk rail and slate blackboards.

Heating and ventilation is supplied by means of a large oil-burning furnace, equipped with automatic temperature control. Running water is furnished for the toilets and for drinking purposes from the private plant of the Scripps estate. A complete electrical system has been installed to supply light and power.

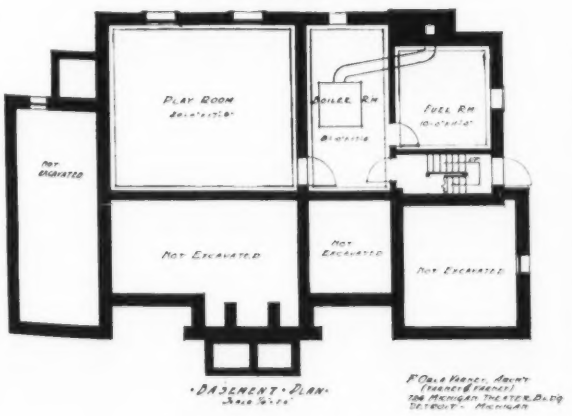
The school grounds are entirely enclosed with a substantial field-stone wall. A complete set of playground equipment has been installed for the school playground.

The building was completed at a cost of $35,000. It was planned and erected under the supervision of Mr. F. O. Varney, architect, of Detroit.

NINA D. SCRIPPS SCHOOL, ORION, MICH.
F. Orla Varney, Architect, Detroit, Mich.



FIRST FLOOR PLAN



BASEMENT FLOOR PLAN

A TYPICAL CLASSROOM

NINA D. SCRIPPS SCHOOL, ORION, MICH.
F. Orla Varney, Architect, Detroit, Mich.

ROBERT E. LEE JUNIOR HIGH SCHOOL, LYNCHBURG, VA.

COMMUNITY HIGH SCHOOL, DURAND, ILL.
Edgar A. Payne, Architect, Carthage, Ill.

THE COMMUNITY HIGH SCHOOL, DURAND, ILLINOIS

Edgar A. Payne, Architect, Carthage, Ill.

The Community High School at Durand, Ill., was planned and erected under the supervision of Mr. Edgar A. Payne, architect, of Carthage, Ill.

The building is 73 ft. in width and 93 ft. in depth. It is three stories in height, with the ground floor being three feet below the grade level. Additional excavation was made for a boiler room under the stage, which contains space for two 7,000-ft. Ideal sectional boilers. The floor of the stage forming the roof of the boiler room is of fireproof construction. The coal bunker which holds over a carload of coal, is outside the building, and has a reinforced concrete roof at the grade level.

The ground floor contains a gymnasium with clear floor space 40 ft. by 70 ft., with a large stage and dressing rooms. The gymnasium is faced with cream pressed brick and has a ceiling height of 22 ft. Concrete bleachers are located on the side opposite the stage, and the 12-foot corridor above which is open to the gymnasium, form a balcony.

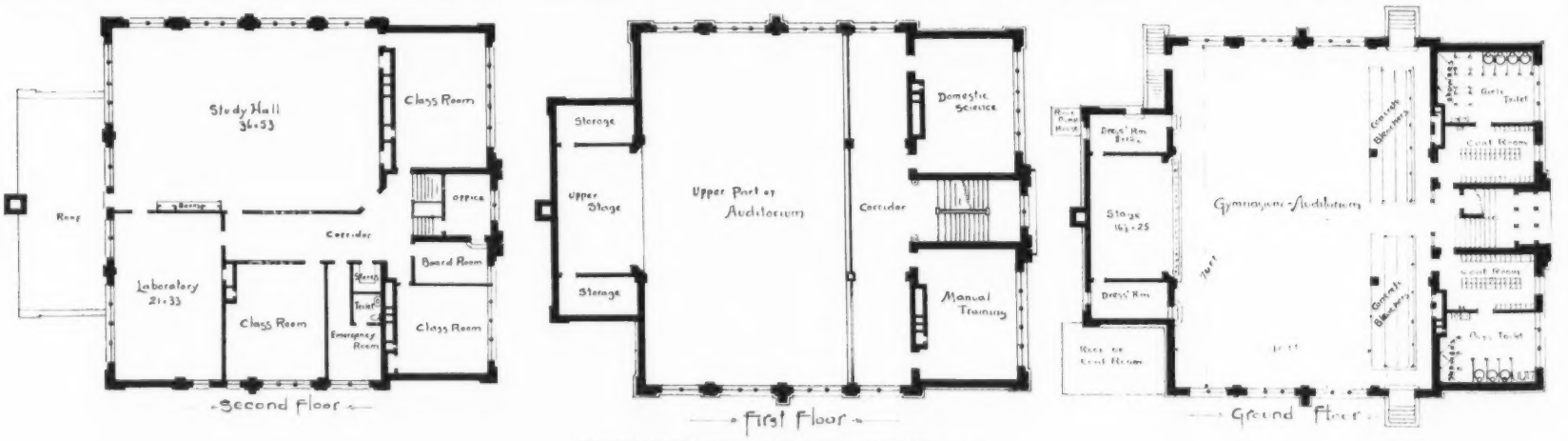
The first floor, in addition to the upper part of the auditorium and the corridor-balcony, provides space for manual training and domestic science rooms.

The second floor which is arranged for high-school use, has a study hall seating 125, a large, well-equipped laboratory, three classrooms, a superintendent's office, a board room, and an emergency room with special toilet facilities.

The building is of fireproof construction, all walls being of brick. The floors are of metal lumber and concrete, and the stairs are of steel, with composition treads. The finish floors in the corridors and vestibules, and on the stairways, are of composition, brownish red in color, and coved at the walls for sanitation. In the classroom and gymnasium, the finish floors are of hard maple, laid over concrete. All openings have Milcor metal trim, and the doors are of oak. The blackboards are of natural slate.

The building is heated and ventilated by steam, and the plumbing fixtures are of the most modern type. Water is supplied from a deep well by a Kewanee system electric pump and pressure tank. The building is lighted by electricity with Brascolite fixtures.

The building cost complete, including construction, heating, plumbing, electrical work, sidewalks, and architect's fees, $76,323.



COMMUNITY HIGH SCHOOL, DURAND, ILL.
Edgar A. Payne, Architect, Carthage, Ill.

The Selection of Sites for School Buildings

School Business Administration— Article III. Concluded

George F. Womrath, Minneapolis

6. Derivation of School Population Indices, Present and Future (Continued)

In the Freeport, L. I. survey, the indices are based upon the number of residences that can be accommodated in the villa zone and estimated (1) on the basis of 60 feet street frontage per home, and (2) on the basis of 8,000 square feet per residence.

Prognostications based upon any of the indices mentioned in the July article must first be translated into the number of houses and then into the number of children, if and when the average number of children per house is known.

7. Selection and Purchase of Proper Site Regardless of Cost

Wrongly located school sites, and the immeasurable hardships which have been inflicted upon the communities where this situation prevails, are the heritage of school districts which have had school boards which have not had an educational policy or have allowed the dollar sign to control the selection of sites. In the absence of a forward-looking building program, the selection of sites and their purchase is generally delayed until the need for a new building arises. Then, because the proper site has been built upon and highly improved and will cost much more than some other site that is unimproved and, perhaps, badly located, the temptation arises to put the dollar ahead of the child. This should never be done. How closely to a well-defined, scientific procedure for locating school sites, and after a site has been properly located buy the right site regardless of cost.

The placing of proper valuation on sites and the procedure for purchasing is generally done through any of the following agencies:

a) School board's own valuation expert or committee,

b) Real estate board,

c) Committee of expert real estate dealers,

d) Condemnation (right of eminent domain).

Score Cards

Boards of education and superintendents will find a score card of great value for checking a new site before final selection.

A typical score card, the Strayer-Engelhardt card, applied to sites as determined by indices as the proper geographical sites will insure selection of the best sites. That is, the technique of indices will locate the exact geographical center of school population and when this center is determined, the score card will enable the scorer to pick the best site should there be a choice of two or four sites around the geographical center due to topography, elevation, soil condition, etc.

It does not invariably follow that a site selected today, and ideally located with respect to all the factors of the score card, may not be tomorrow totally upset by unforseen developments such as attend unexpected street-car-line extensions, growth or decay of industrial centers, advance or decline in city population. The ratio of failures will be, however, very small.

The factors attending the final selection of a site as enumerated in the Strayer-Engelhardt Score Card follow:

Site: A. *Location.*

1. Accessibility.

a) The geographical center of the district.

b) The center of present and estimated future population.

c) Types of streets leading to the school should be fully considered.

d) Location may be sacrificed in the interest of adequate size of site and environment.

2. Environment

a) Gardens, trees, shrubbery in vicinity and on grounds are desirable.

b) The skyline should not have an angle of more than 30 degrees from base of building. It is generally accepted that the distance of the school building from obstructing buildings or trees ought not to be less than twice their height.

c) Nearness of nonfireproof buildings becomes a source of danger.

d) The neighborhood of railroad crossings and intersecting car lines should be avoided.

e) The vicinity of sources of immoral influences should be avoided.

f) Freedom from noises, dust, danger, polluted air, and malodors should be sought.

B. *Drainage.*

1. Elevation.

a) Freedom from surface drainage of contiguous ground, especially if such ground is exposed or has been recently exposed to pollution of any kind.

b) If built on flat ground, tile drainage may be needed underneath cellar as well as about the grounds. Depth of tile should be determined by the character of the soil.

c) Where the contour of land makes it possible, the site should be located on high land. Abrupt differences in grade, which might appear to be disadvantageous, often furnish the very opportunity for a commanding setting of the building. Low ground should be avoided wherever possible. High land, at a reasonable distance from factories, stables, dumps, swampy places, and other objectionable surroundings should be sought.

2. Nature of Soil.

a) The soil should be nonerosive. Sandy loam is best with 15–25 per cent sand.

b) Natural ground should be chosen in preference to artificially constructed land. Possible contamination of the soil and its accompanying menaces to the health of children are sufficient reasons for avoidance of the latter.

c) The playground section should be dry and pervious. It should be constructed to drain very rapidly. Concrete or brick surface should be avoided.

C. *Size and Form.*

a) The site should be large enough and of good shape to allow for the proper placing of building. With the tendency toward the erection of large schools, sites of four to six acres should be provided.

b) The playground, exclusive of lawns and gardens, should provide a minimum of 100 square feet per child.

c) The playground should have adequate playground equipment.

d) Provision should be made for a flagstaff on the school grounds in front of all school buildings. It should be at least 40 feet high and provided with halyards, truck, etc., complete. A suitable receptacle for the safe-keeping of the flag when not in use should be provided within the school building.

To the foregoing items may be added:

Accessibility to other elementary, junior high, senior high and vocational schools.

1. EDISON SCHOOL 2. PILLSBURY SCHOOL 3. COLUMBUS SCHOOL
VIEW SHOWING INDUSTRIAL RESERVE AND SAND AND GRAVEL PITS CREATING BARRIERS IN SCHOOL AREAS

Relationships to location of other buildings, other districts, existing and prospected.

Population centers—present and future.

Effect of various types of streets leading to the schools.

For what conditions can location be sacrificed?

Size—when and under what conditions?

Environment—when and under what conditions?

Advantages of actual street boundaries.

What local prejudices enter in when considering site accessibility?

Past history of a section of the district.

Factional prejudices.

How can they be overcome?

Private and parochial schools in the district.

Should low land be avoided? When?

Should school boards, by reason of their greater purchasing power as compared with private citizens, select and develop undesirable property whenever possible so as to remove it from the tax lists?

Loud-Speaker in New Senior High School at Beaumont, Texas

"I'm sorry, but I didn't hear the announcement."

On January 1, 1930, that excuse will no longer serve in the new senior high school at Beaumont, Texas, which will be equipped with a loud-speaker system.

Last spring the loud-speaker was tried out in the old building, and met with the approval of students and teachers. Now, the board of education of the Beaumont schools has decided that the loud-speaker will be installed in the new structure.

Announcements in the school have been made heretofore by means of mimeographed sheets but this system had its defects. If assemblies were called for announcements, there would always be some students who failed to hear, or who would misunderstand. With the loud-speaker system the control instrument will be located in the office, and from it all announcements may be made to each room at the same time.

The system will also be used for outside programs. In regard to this feature M. E. Moore, superintendent of the Beaumont city schools, says: "This is probably one of the most progressive things ever indorsed for the Beaumont high-school students. Through it students may be benefited by talks from Beaumont business and professional men who are masters in certain lines of work while the speakers sit in their offices losing only the ten or fifteen minutes during which they talk."

THE AMERICAN
School Board Journal

WM. GEO. BRUCE
WM. C. BRUCE } EDITORS

EDITORIAL

LIFTING THE SCHOOL BOARD OUT OF A RUT

The character of the board of education as exemplified in American communities is in the main a reflex of the constituency that has created it. If the citizenship approaches the ballot box in a discriminating attitude giving preference to candidates that measure up to recognized standards and ideals, there can be no question as to the outcome. A high-class board of education will be chosen.

On the other hand, where the voter proceeds upon narrow lines, recording his choice on the basis of friendship regardless of personal fitness, the contrary result is achieved. Water rises no higher than its own source. The board of education will be what the public makes it. If the thoughtful and high-minded citizen is indifferent to the results of a school election the worst may happen. An inferior board of education may be chosen.

Someone may here urge that there is a vital difference between the elective and the appointive system of school-board making, and that while in the one instance the immediate choice lies with the individual voter, in the other the choice has been delegated into the hands of a mayor or other agency. In the latter instance it follows that the choice of a mayor or a judge is also within the suffrage rights of the constituency.

The mayor who is vested with the authority to appoint the members of a board of education is reasonably certain to reflect the popular sentiment as to the character and fitness of that body. A shrewd executive will aim to meet the standards of the community as he interprets them.

But whether the elective or the appointive system prevails it remains that the public must in some manner give expression on what it conceives to be the requirements of a board of education personnel. These conceptions must be publicly recorded and proclaimed. While in the appointive system one man at least must appraise public sentiment, in an elective contest the average citizen may look for guidance.

A properly constituted citizens' committee may do much to set the pace in the right direction. It can express the educational aspirations and ambitions of the community along broad lines without getting into the tangle of partisan politics. Once the public mind is taught to place a premium upon character and fitness the battle is half won. The citizen of high standing will lend his or her name for school-board honors provided there exists a demand for that kind of citizenship.

It all resolves itself into a question of standards and ideals, or the state of the public mind. Where public opinion entertains misconceptions as to what constitutes an efficient board of education, some leadership in the right direction is needed. A citizens' committee, properly constituted, free from selfish intent, may set forth with surprising effect the objectives of a school system and the kind of men and women required to realize these objectives.

Experience has taught that where such a body strikes the proper chord, awakening the higher aims and aspirations of the community, it also meets with the desired results. The board of education that measures up to all the requirements of its being, is the reflex of the best thought and the finer ideals of the community.

WHERE A CLEAR-HEADED EDITOR CAN RENDER A SCHOOL SERVICE

There are disturbing situations likely to arise in any school system which do not readily adjust themselves unless some authoritative voice is raised in the interest of harmony and common sense. The interested parties are wedged into a position which may lead into a calamitous issue unless checked by some outside agency or influence. The local newspaper editor occasionally comes to the rescue, provided he is correctly informed and exercises sound judgment.

A situation arose recently in a Pennsylvania city where the teaching forces lent themselves to insubordination and disharmony. They were encouraged by a few weak-minded school directors who failed to appreciate their own scope and function. Thus the board was divided, and the superintendent, whose authority was being defied, was helpless.

Then the editor came upon the scene. He clarified the atmosphere by holding that "the superintendent is the authorized representative of the board and his orders and instructions should have the same weight and force as if promulgated by the directors themselves. In matters of pedagogy and school administration he is and ought to be the last word, because of his professional training. His judgment should be accepted and respected. If this cannot be done, then it is the duty of the board to find a superintendent in whom they can repose implicit confidence. But so long as he remains he is entitled to the whole-hearted support of the directors."

The editor then proceeded to assert that certain supervisors and teachers had not only ignored the superintendent's orders, but had actually defied him. He then laid down the following caution in language that hit the center spot:

"This unhappy lack of cooperation is inimical to the best interests of the students, who are the very first consideration of the school authorities. It cannot be permitted to go unnoticed by the directors. Nor can it be allowed to continue uncorrected. Unless summary action is taken there is no telling where it may end or how far-reaching will be the evil effects.

"Insubordination cannot be tolerated for a moment. All discipline will go by the board and the entire educational structure come crashing down about the heads of the school board. And the sad part of it all is that the children of the city will be the innocent sufferers by this state of affairs. The directors should immediately set about to put their house in order. The time for a show-down has arrived.

"No employee of the district should be permitted to treat with contempt an order issued by either the board itself or one who acts in the stead of the board. And not only should action be taken in this regard, but also the board should see to it that no one interferes with the proper functioning of the system, not even a director himself. The board is superior to any member thereof and it ought to be exceedingly jealous of its prerogatives. Any director who assumes that he is a privileged character and who acts accordingly should be set down with a dull thud."

Here was an expression of sound sense. It disparages petty contention and directs attention to the high purpose for which school directors, supervisors and teachers, and schoolhouses are employed. All of which demonstrates that there may be situations in which the newspaper editor can render a real service to the cause of popular education.

THE GENESIS OF A SCHOOL FRACAS

The time of year when boards of education employ and reemploy the professional talent for the ensuing school year is also the time when eruptions in the relation between such boards and the general public are most likely to arise. A superintendent of schools, a principal, or a teacher has been asked to resign or has failed of a reelection. The public, or that part of the public interested in school affairs, objects to the action taken, or to be taken, by the board of education. And the school row is on.

Another form of school fracas finds its inception in a group of citizens who demand the removal of a superintendent, a principal, or a teacher. A mass meeting is staged, fiery speeches are made, the grievances of this or that parent are aired, and a set of resolutions condemnatory of the offending school worker is adopted. The superintendent is usually charged with "inefficiency and insubordination," the principal is "officious and domineering," and the teacher is "intolerant and high-handed." And here you have the other type of school row.

The board of education in the one case is called upon to reinstate the person that has been dismissed. In the other it is called upon to dismiss those that the protestors have condemned. In either case it means that the board shall acquiesce to the demands of a fraction of the citizenship.

Such action proceeds upon the theory that the protesting group of citizens is more competent than the regularly constituted board of education to determine who shall manage the schools and who shall teach the children therein. It finally means that the board of education shall surrender its official prerogatives and turn them over to an unofficial body of protestors.

One of the finest things in American civic life is found in the loyal interest manifested by the constituency in the schools. But there is the tendency for that interest to expand into interference, a suggestive attitude to become a meddlesome activity, and a protest a pronounced hindrance to progress.

True, school authorities are susceptible to mistakes, but the assumption must be that those who have been chosen by the constituency to manage the school system should be permitted to do so. The further assumption must be that those on the inside of things are better qualified to judge what should or should not be done than those on the outside.

In contemplating these unnecessary eruptions and explosions one must come to the conclusion that boards of education must exercise the greatest caution and judgment in dealing with the professional factors. A school fracas is frequently the inevitable outcome of hasty and unwise action on the part of the school authorities. While the interests of the school child are the paramount consideration there must be fair play as far as the professional workers are concerned. No board of education can afford to overlook the equities involved in dealing with the most essential factors of a school system.

All this leads to the fixed conclusion that the board of education must approach every action with due deliberation and circumspection and then adhere firmly to an action once taken. When the board is in the right it must not flinch in the face of opposition. An affirmative and pronounced attitude will inspire confidence. An uncertain and vassalic course will do the opposite.

SHALL SCHOOL BUILDINGS SERVE OUTSIDE PUBLIC PURPOSES?

The modern schoolhouse, as found today in all sections of the country, is not only an expression of a progressive spirit, but of national prosperity as well. These schoolhouses are better planned and built, more utilitarian and ornate than similar structures elsewhere in the world. The well-designed school, and that applies particularly to the modern high-school building, in

thousands of smaller and medium-size population centers, plays an important part in the civic life of the community.

This is accounted for in the fact that the modern high school is frequently the most stately edifice in the town, is equipped with a spacious auditorium, maintains a fine gymnasium, and is ideally adapted to serve public functions. Every community has occasions which are characterized by large assemblages. The halls of the fraternal societies, clubs, and the like, are not always best suited to house popular audiences. A structure which belongs to all the people becomes the most acceptable.

Thus, the demand upon the school authorities for the use of the high-school auditorium has been before many school authorities and has at times given rise to vexatious situations. Rules and regulations governing that sort of thing have been formulated and the line of inclusion and exclusion has, in many instances, been carefully drawn. Religious and political meetings, as well as speakers dealing in controversial subjects, have been excluded. This policy has obviated many difficulties and has met with public approval.

There are occasions, however, which do not concern the school interests directly but which enlist the interest of the general public. There are celebrations of a civic and patriotic character, the advent of distinguished visitors, dramatic performances, athletic events, musical festivals, and social-center activities which are best housed in the local high school. In such cases the school authorities must exert a liberal policy.

The question which enters at this point is whether the school building shall be used exclusively for school purposes, or whether it shall be thrown open to general public use. The contention which has been advanced is that the schoolhouse belongs to the public and should therefore be given over to the widest possible public use. On this theory the use of school buildings for purposes other than of the school is constantly increasing, and the question of terms and conditions are being equitably established.

THE "MIKE OR STRIKE" ATTITUDE OF THE STUDENT BODY

An interesting situation recently arose in an Illinois city. The board of education received charges against the superintendent of schools. A hearing was instituted and the charges were investigated behind closed doors. Before the board could announce its decision the superintendent voluntarily resigned. This action, under ordinary circumstances, would have closed the incident. A sensible press and public would have stopped right here on the assumption that the good discipline of the school system forbade further probing and the consequent publicity.

But an overzealous citizenship must come to the rescue of the school superintendent. The press wanted to know just what had happened behind closed doors and publish to the world all that had been said and done. Then it developed that seven teachers had charged that the superintendent had discussed sex questions with a shocking frankness.

That was enough for the board of education. But not so with the editor. A "Mike or Strike" slogan was coined. He ranted in a two-column article. Here is one paragraph: "The issue was settled behind closed doors. Charges were heard. Testimony was given that the public cannot pass on. In other words, this was another 'public be damned' session, from which there comes an elderly man, tossed out of office, without suitable reputation to secure another school position, branded with charges which the public has absolutely no way of knowing whether they be true or untrue."

The position here taken by the press notes a vicious tendency. The school authorities adjust a nasty affair in a quiet manner and in the interest of good discipline. In the judgment of the editor such matters must be judged by the public and not by the school board. At any rate, the unpleasant side of things must be paraded before the public mind. Such is the editor's edict.

If a school scandal concerned an adult constituency only there could be less objection to full publicity. As it happens such matters are bound to become a common knowledge of the school children if the details are openly circulated.

Questions involving the morals of teachers and pupils must be adjusted promptly and without ostentation. Boards of education in cases of this kind should hold firmly to their right to adjust them behind closed doors. A disgruntled editor may bark, but sound public opinion concerned in the morale of a pupil constituency will uphold such a policy.

PROPAGANDA OF THE PUBLIC UTILITIES IN THE SCHOOL FIELD

The announcement in the public press made some months ago, to the effect that prominent educators had been employed to do propaganda work for the public utilities corporations, startled the country. Coupled with the announcement came the alarming statement that some of the school textbooks were tainted with the propaganda germ. Educators everywhere began to examine their schoolbooks to see whether any objectionable matter had crept in.

Now that the hubbub has subsided it is found that, so far as the elementary and secondary schools of the land are concerned, there was no cause for alarm. It was not likely that a wide-awake school administration would permit a series of textbooks to go into the schools that were designed to make propaganda for any particular interest, cause, or movement.

The question of propaganda came up for discussion in the school board of Boston recently when Superintendent Jeremiah E. Burke made the following statement: "The various textbooks run a gauntlet of criticism from the classroom up to the board of superintendents, and from that board to the board of education. This method gives us first, the best books and, secondly, it eliminates anything objectionable. We carefully guard against anything which discriminates on religious, racial, political matters, and we guard against the so-called social problems in education. I can say that our public schools are absolutely free from all such propaganda."

What has been the accepted rule in the schools of Boston is also the rule elsewhere, and it is unlikely that objectionable matter would remain in any textbook very long. Somebody would make the discovery sooner or later.

A word of caution is always timely. Even if there have been no violations of the proprieties which must govern the school administrative service, it may be well to guard against the probability of such violations.

THE ELEMENT OF SAFETY IN SCHOOL BUILDINGS

No one in these days, would suppose, when progress has entered every human endeavor, that the question of safety should be ignored in the planning and construction of school buildings. The calamities which have in the past attended the use of the American schoolhouse have led to the introduction of all sorts of safety devices. Fire escapes, unlocked doors, fireproof stairways, ample exits, and the like, have found ready acceptance. Every accident has resulted in a new precaution and a new device in the direction of safety.

Thus, the modern schoolhouse is a model in point of design, orientation, and safety. In fact, safety has always been a prime consideration. The housing of hundreds of human lives within the compass of four walls for a certain number of hours each day has made this necessary. No architect would knowingly omit the element of safety.

And yet, the discovery is made every now and then that school structures, which have been occupied for years, are a menace to safety. It must be expected that older structures may become decrepit and obsolete. But when schoolhouses of comparatively recent construction are condemned there is cause for apprehension.

In Chicago two schoolhouses were recently closed because of their unsafe condition. Now comes the startling information that the safety of 45 more school buildings is seriously questioned. This information is brought to the school authorities by a citizenship which is in nowise officially connected with the school system.

This establishes the fact that the architects and school authorities of recent years have been derelict in planning and constructing the school buildings. When a structure is deemed unsafe because faulty material and equally faulty methods of construction have been employed, it stands to reason that some one is to blame.

The revelations which come to the surface here and there should serve as a warning everywhere to those who are engaged in planning new schoolhouses. They go to show that modern school architecture has been inclined to rely upon the equipment rather than the component parts of a structure for the factors of safety. They also prompt reiteration of the oft repeated statement that safety is the first requisite of a school structure, and that the same essentials in this direction which applied years ago cannot reasonably be ignored today.

THE COME AND GO OF SCHOOL BOARD LIFE

In most communities school board elections are held in the spring of the year. The reports which come to us would indicate the number of changes in the personnel of boards of education was unusually large this spring.

In some instances citizens believe that by serving one or two terms on the local school administrative body they have made an ample contribution to the progress of the community and hence decline a reelection. In others, local disagreements and dissensions render the reelection of the incumbents quite doubtful. In still others the new aspirant for school board honors, seeks to displace the tried and true member.

In discussing changes it follows that the acquisition of new blood in a school board organization usually has its beneficent effects. Men and women who aspire with unselfish motives to places on the local school board, and who come with experience in business and professional life, must be welcomed. The continuity of the school administrative service depends upon such aspirants.

On the other hand, frequent changes are not conducive to efficiency. Among the ablest boards of education in the United States are those where a longer tenure of service is in vogue. Men grow in value by experience, and there is no reason to believe that by long service members will sink into a slumber of conservatism.

The new member on a board of education is usually an interesting figure. The success or failure of his job will primarily depend upon his approach to the same. If he comes with great notions of reforms he will become a disturber, get on the front page of the newspaper and then sink into oblivion wondering what it was all about. If, on the other hand, he realizes that there is much to learn in the field of school administration, and that he must spend some time familiarizing himself with the lay of the land before assuming the initiative on current problems, he has a promising future. The over-ambitious and over-active recruit to school board honors usually comes to grief. The thoughtful and circumspect travels slower, and looks before he leaps. He does not care to shine in the newspapers. He merely wants to do his share in rendering the school system all that it ought to be.

Index of School-Bond Prices[1]

Harold F. Clark, Teachers College, Columbia University, New York, N. Y.

The net interest rate on all school bonds sold in the month of June was 4.97 per cent. The net interest rate on all school bonds sold in May was 4.75 per cent. As the figures show, the June rate was .22 of one per cent higher than the average rate in May. This represents one of the sharpest increases in recent months and takes the index to a higher level than it has reached since 1926.

This decided increase in school-bond interest rates constitutes a very real problem for the school board contemplating issuing bonds. A little over a year ago, bonds could be sold for slightly over 4 per cent. Now, the same school bond has to carry an interest rate of almost 5 per cent. If the bonds are issued for a period of twenty or thirty years, this difference in interest rates makes a very real difference in the cost of school building. Industry faces exactly the same problem. The high interest rates on bonds at the present time is clearly shown by the statement recently issued by one of the largest New York investment houses when it said, "A certain type of bond, legal for saving banks, rarely in the past fifty years has been selling for prices as attractive as now. Such bonds cannot be bought to yield more than 5 per cent. Such a yield was obtained only for a short period during the 1870's and again after the close of the world war. Within the last generation, this type of security sold on a 3½-per-cent-yield basis. Short-term legal bonds can now be bought at prices to yield 6½ per cent while longer bonds can be purchased to yield up to 5½ per cent." The implication is very clear that this type of bond from the standpoint of the seller, cannot be sold to good advantage at the present time.

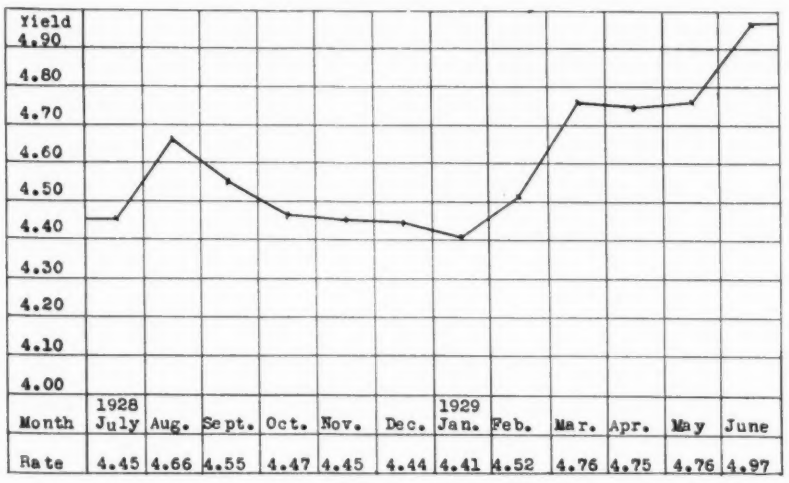


TABLE I. AVERAGE YIELD OF ALL SCHOOL BONDS SOLD DURING THE MONTH

In the face of the very high interest rates prevailing on bonds, one community, by some process or other, managed to sell a sizeable bond issue at a net interest rate of 4 per cent. A long list of cities paid 5 per cent and a fair number 6. Some of the cities that have the very highest credit standing paid as high as 4.60 or 4.70 per cent.

The total amount of school bonds sold in June represents a very decided contraction from the large amount sold in May. The highest interest rates probably had something to do with this. The total sales in June were slightly less than $15,000,000. This represents a decrease of almost $10,000,000 as compared with May. All municipal-bond sales, on the other hand, were larger in June than for the same period in recent years. However, the total municipal-bond sales so far this year are far under the total of corresponding years for the same period. It now looks as though the total municipal-bond sales would be smaller in 1929 than they have been for some years past.

Table IV shows that even Federal Government bonds have felt the change in bond prices. Yield of Government bonds reached a high point in the month of March and then showed a slight decline in April and May. It now looks as though the March record might be surpassed.

Table V shows the movement of prices of common stocks. The monthly average of prices since January has been remarkably consistent. However, very large fluctuations have occurred within the month. A high point was reached in May, followed by a break and a new all-time high was made the first of July followed by some decline. The price of bonds as reported in Table V shows a continued tendency to fall with, of course, a corresponding rise in yield.

Table VI shows the change in wholesale prices. There has been some very slight rise in the price of all commodities. Building materials, on the other hand, show some little tendency to reach slightly lower price levels.

In fact, as stated, only twice in the past fifty years have as high interest rates been paid upon this particular type of bond. Another of the recognized financial authorities makes the statement that no improvement of bond prices is looked for until the amount of credit going into stock speculation has been reduced.

The school officials, faced with the necessity of issuing bonds, will simply have to make the most of a bad situation. The greatest care and caution should be used in selling bonds to get the very best bid that the market will make. If other methods of financing are available rather than long-term bonds, they should be most carefully considered. At all events, the length of time the bond is to run should probably be reduced to a minimum.

[1]Copyright by Harold F. Clark.

TABLE II
Amounts and Yields of Bond Issues[2]

	December, 1928
1. School bonds sold during the month of June	$ 15,010,500
2. All municipal securities sold during the year (to date)	581,000,000
3. All school bonds outstanding (estimated)	3,258,000,000
4. Average yield of all school bonds outstanding (estimated)	4.63%
5. Yield of school bonds of ten large cities	4.60%
6. Yield of United States long-term bonds (quotation the middle of January)	3.69%

[2]The monthly total of school bonds does not include all the bonds issued in the month, due to the difficulty of obtaining the yield on some of the issues.

TABLE III
Bond Sales and Rates[3]

Year	Bond Sales: School	Bond Sales: Municipal	All Public and Private	Average Rates: Year	Average Rates: Municipal
1928	$240,000,000[4]	$1,413,000,000[4]	$ 8,000,000,000	1928	4.45
1927	266,000,000	1,509,000,000	7,735,000,000	1927	4.49
1926	260,000,000	1,365,000,000	6,311,000,000	1926	4.61
1925	323,000,000	1,399,000,000	6,223,000,000	1925	4.58
1924	288,000,000	1,398,000,000	5,593,000,000	1924	4.26
1923	206,000,000	1,063,000,000	4,303,000,000	1923	4.76
1922	237,000,000	1,101,000,000	4,313,000,000	1922	4.81
1921	215,000,000	1,208,000,000	3,576,000,000	1921	5.18
1920	130,000,000	683,000,000	3,634,000,000	1920	5.12
1919	103,000,000	691,000,000	3,588,000,000	1919	5.04
1918	41,000,000	296,000,000	14,368,000,000	1918	4.90
1917	60,000,000	451,000,000	9,984,000,000	1917	4.58
1916	70,000,000	457,000,000	5,032,000,000	1916	4.18
1915	81,000,000	498,000,000	5,275,000,000	1915	4.58
1914	42,000,000	320,000,000	2,400,000,000	1914	4.38

[3]By special permission, based upon sales reported by the Commercial and Financial Chronicle.
[4]Not final.

TABLE IV
Average Yield of Long-Term Federal Government Bonds[5]

Past Twelve Months: Month	Rate %	Past Six Years: Year	Rate %
1929		1928	3.437
July	3.75[6]	1927	3.464
June	3.73[6]	1926	3.544
May	3.67	1925	3.797
April	3.67	1924	4.010
Mar.	3.76	1923	4.298
Feb.	3.66	1922	4.301
Jan.	3.59		
1928			
Dec.	3.53		
Nov.	3.48		
Oct.	3.55		
Sept.	3.54		
Aug.	3.56		

[5]Taken from Federal Reserve Bulletin.
[6]Not final.

TABLE V
Security Prices and Yields[7]

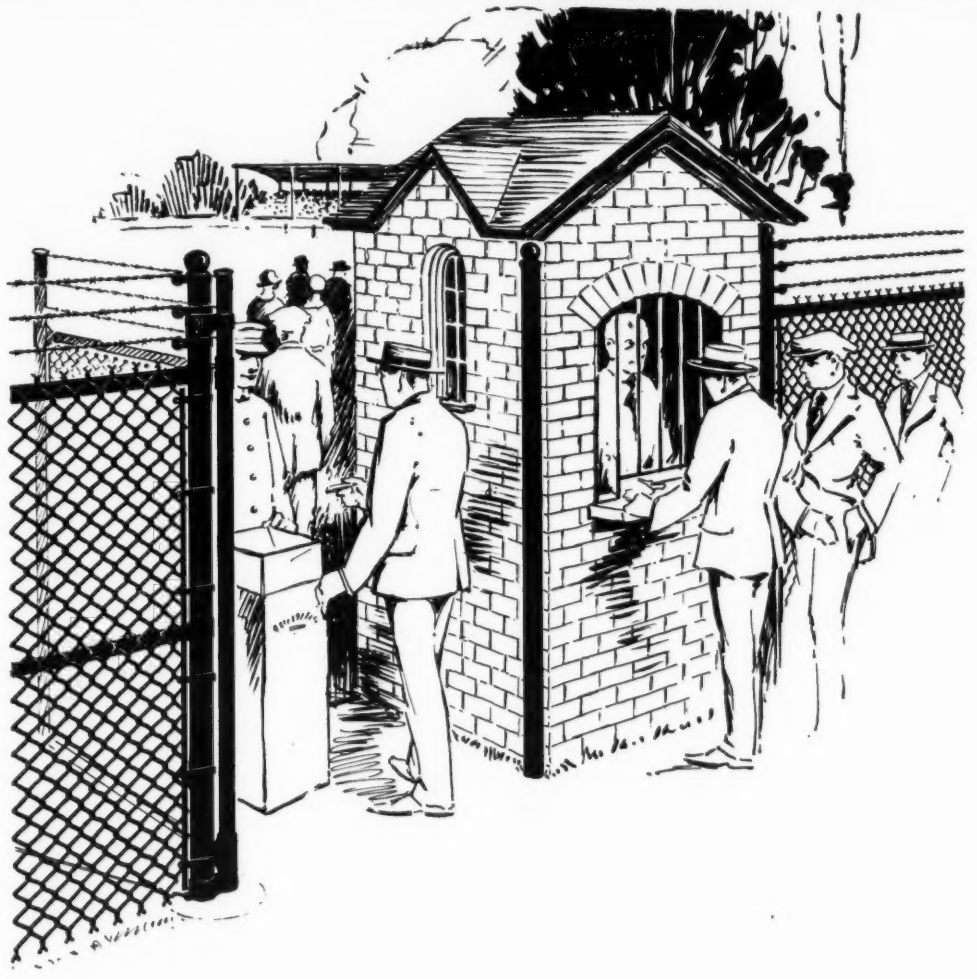
Date	Average Price of 393 Stocks (1926 Average=100)	Average Price of 60 Bonds	Average Yield on 60 High-Grade Bonds
1929			
July	188.7[8]	95.2[8]	4.74[8]
June	188.9[8]	95.3[8]	4.73[8]
May	187.8	95.7	4.70
April	186.6	95.8	4.69
March	189.1	95.8	4.69[8]
February	186.5	96.3	4.65
January	185.2	97.0	4.60
1928			
December	171.4	97.2	4.59
November	171.1	97.8	4.55
October	159.1	97.5	4.57
September	156.6	97.5	4.57
August	148.3	97.2	4.59

[7]As reported by Standard Statistics Company, Inc. Used by special permission.
[8]Not final.

TABLE VI
Revised Index Number of Wholesale Prices[9]

Past Twelve Months: Month	All Commodities	Building Materials	Past Six Years: Year	All Commodities	Building Materials
1929			1928	97.7	93.7
July	96.6[10]	96.5[10]	1927	95.4	93.3
June	96.7[10]	96.6[10]	1926	100.0	100.0
May	95.8	96.8	1925	103.5	101.7
April	96.8	97.9	1924	98.1	102.3
Mar.	97.5	97.8	1923	100.6	108.7
Feb.	96.7	97.5			
Jan.	97.2	96.6			
1928					
Dec.	96.7	96.8			
Oct.	97.8	95.0			
Nov.	96.7	96.0			
Sept.	100.1	94.7			
Aug.	98.9	94.6			

[9]United States Bureau of Labor Statistics, 1926—100.
[10]Not final.



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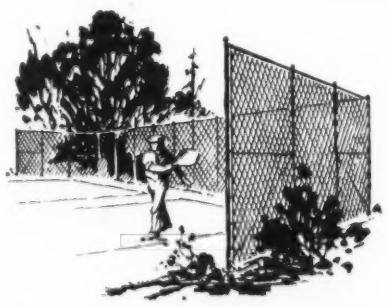

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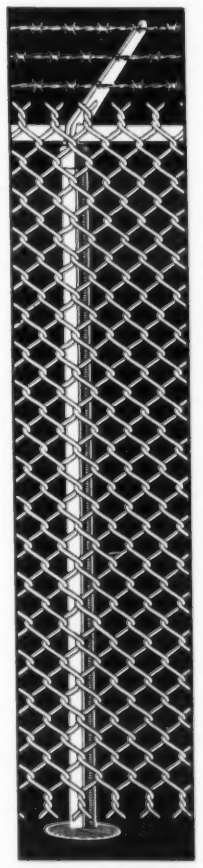

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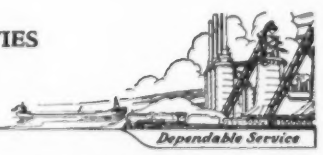

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SCHOOL LAW

School Lands and Funds

The board of education is vested with wide discretion in the employment of teachers, which should not be interfered with if exercised in good faith.—Ansorge v. City of Green Bay, 224 Northwestern reporter, 119, Wis.

Schools and School Districts

Where no petition was filed and no election held, the county board's order attempting to annex the school district to a consolidated school district without outstanding indebtedness was invalid (Hemingway's code of 1927, §8745).—Lamb v. Morgan, 120 Southern reporter, 745, Miss.

School District Government

The exercise of honest judgment in removing the superintendent of schools, though erroneous, is not an abuse of discretion (Ala. acts of 1919, p. 600, art. 9, §1).—Dunlap v. Board of Education of Winston county, 120 Southern reporter, 144, Ala.

The county board of education or the members were not liable for a breach of contract by a de facto board whose duties they assumed (Ala. acts of 1919, p. 595, art. 8, §1; school code of 1927, p. 21).—Dunlap v. Board of Education of Winston county, 120 Southern reporter, 144, Ala.

The members of the county board of education were not individually liable for the misconduct of city board members, to whose duties they succeeded (School code of 1927, p. 21).—Dunlap v. Board of Education of Winston county, 120 Southern reporter, 144, Ala.

A school-board member, voting to purchase supplies from a partnership, of which he was merely a salaried manager, is held properly acquitted of a misdemeanor (C. S. §4390).—State v. Debnam, 146 Southeastern reporter 857, 196 North Carolina, 740.

School District Property

A common-school district has authority to construct a building needed for school purposes (revised statutes of 1923, §§72—302, 72—1023, 73—2001).—Woodson v. School Dist. No. 28, Kingman county, 274 Pacific reporter, 728, 127 Kansas, 651.

The acts and declarations of individual members of a school board will not create a contract enforceable against a district.—Board of education of City of Shawnee v. American Nat. Co., 275 Pacific reporter, 285, Okla.

The act of painting a flagpole, for which a person was employed by officers of a school district, is held ministerial, rendering the district liable if its negligence injured the painter. (Oreg. laws, §§357, 358, 5073).—Lupke v. School Dist. No. 1 of Multnomah county, 275 Pacific reporter, 686, reg.

When a school district is erecting or repairing a structure, its duty becomes ministerial; liability attaching for injuries to persons.—Lupke v. School Dist. No. 1 of Multnomah county, Pacific reporter, 686, Oreg.

If a quasi corporation, like a school district, is performing a ministerial act, by having a laborer paint a structure at daily wage under certain conditions, the employers' liability act applies (Oreg. laws, §§6785-6781).—Lupke v. School Dist. No. 1 of Multnomah county, Pacific reporter, 686, Oreg.

School-District Taxation

Irregularities as to notices and other matters which did not affect the result did not invalidate an election authorizing the issuance of school bonds (Tex. revised states of 1925, art. 2784, subds. 2 and 4; arts. 2785, 2786).—Sykes v. Pandora Independent School Dist. No. 14, Southwestern reporter, (2d), 124, Tex. Civ. App.

Voters having passed on the necessity for the issuance of bonds by voting for issuance, the courts cannot inquire into the necessity. (Tex. revised statutes of 1925, art. 2784, sbd. 4).—Sykes v. Pandora Independent School Dist. No. 14, Southwestern reporter, (2d), 124, Tex. Civ. App.

Pupils and Conduct of Schools

Officers of common-school districts may arrange for paying transportation of pupils to attend school in another district. (N. Dak. complete laws of 1913, §1179).—Parrish v. Menz School Dist. No. 5, Sioux county, 223 Northwestern reporter, 693, N. Dak.

The obligations of a common-school district to furnish transportation is not limited to pupils attending school within the district. (N. Dak. complete laws supp. 1925, §1342).—Parrish v. Menz School Dist. No. 5, Sioux county, 223 Northwestern reporter 693, N. Dak.

A common-school district's obligation to pay transportation for a pupil attending school in an adjoining district was not conditioned on a request for transportation to a more remote school within the district (N. Dak. complete laws of 1913, §1179; complete laws supp. of 1925, §1342).—Parrish v. Menz School Dist. No. 5, Sioux county, 223 Northwestern reporter, 693, N. Dak.

Teachers

Whether a marriage provision in a teacher's employment contract was a covenant or condition must be determined from the language of the contract and surrounding facts and circumstances.—Ansorge v. City of Green Bay, 224 Northwestern reporter, 119, Wis.

Discharge by a school board of a teacher on her marriage does not contravene a statute recognizing freedom of women to contract the same as men (Wis. statutes of 1927, §6.015).—Ansorge v. City of Green Bay, 224 Northwestern reporter, 119, Wis.

Official notice by a board of the teacher's discharge was unnecessary, where the teacher accepted the director's notice of discharge and ceased to perform services thereafter.—Ansorge v. City of Green Bay, 224 Northwestern reporter, 119, Wis.

A teacher discharged on marrying is held not entitled to pay for the entire school year, in view of a provision in the contract against marriage.—Ansorge v. City of Green Bay, 224 Northwestern reporter, 119, Wis.

A teacher in a school district of the first class thereafter becoming superintendent in a district other than that of the first class was not entitled to membership in the state teachers' fund. (Wash. laws of 1923, p. 641, §10).—State v. Preston, 275, Pacific reporter, 81, Wash.

THE ILLINOIS EIGHT MONTHS' TERM BILL

The fact that in many of the districts of the state of Illinois the school children were exposed to teaching and instruction for ten months out of the year, while in other parts of the state, children just as worthy and just as desirous of education, were able to attend school only seven months in the year, has shown clearly the inequality in educational opportunity throughout the state. Out of 11,000 school districts, there were 2,139 having seven months of school during the year ending June 30, 1928. Of these, 725 districts were taxing

(Concluded on Page 72)

"Well, GEORGE,

—how do you like the new floors?"

GEORGE, who has been a school janitor for a long, long time, was a little skeptical when the new floors were laid.

All the facts about "floor sanitation" and "reduced cleaning and maintenance costs" didn't mean much to him. He was interested in just one thing—would the new Bonded Floors make *his* work any easier?

Let us, then, consider school floors, for a moment, from the human angle of those people whose job it is to care for them.

Install Bonded Floors of *Sealex* Linoleums or *Sealex* Tiles and George's toil is considerably reduced, for this new type of resilient floor is surprisingly easy to clean. No need for back-breaking scrubbing or for expensive, powerful cleansing agents. Sweeping with a push-broom or a light mopping is all that is necessary to remove dirt and spilled things from its smooth, sanitary surface.

Dirt, liquids, inks, and greases cannot damage Bonded Floors of resilient linoleum or cork-composition tile. The *Sealex Process* makes them spot-proof and stain-proof. Teachers and pupils find these attractive, resilient floors highly desirable. The sound-deadening surface is pleasant to walk upon —reduces the shock and clatter of footsteps—minimizes nerve-strain—aids concentration.

As for pleasing the school board who must o.k. the expense of new floors—it is easily demonstrated that *Sealex* floors, because of their reasonable first-cost, remarkable durability and immunity from all refinishing expenses, are a wise, sound and economical investment.

The Bonded Floors contractor near you, who lays these special materials, will help you select the right floor from the several types available:—the most economical or the de luxe; linoleums in solid colors, two toned effects or colorful patterns; handsome, designed-to-order floors of *Sealex* Treadlite (cork-composition) Tile.

And remember, when your *Sealex* floors are installed by an Authorized Contractor for Bonded Floors, you can bank on the satisfactory service that is assured by perfect installation of high class materials, backed by a Guaranty Bond.

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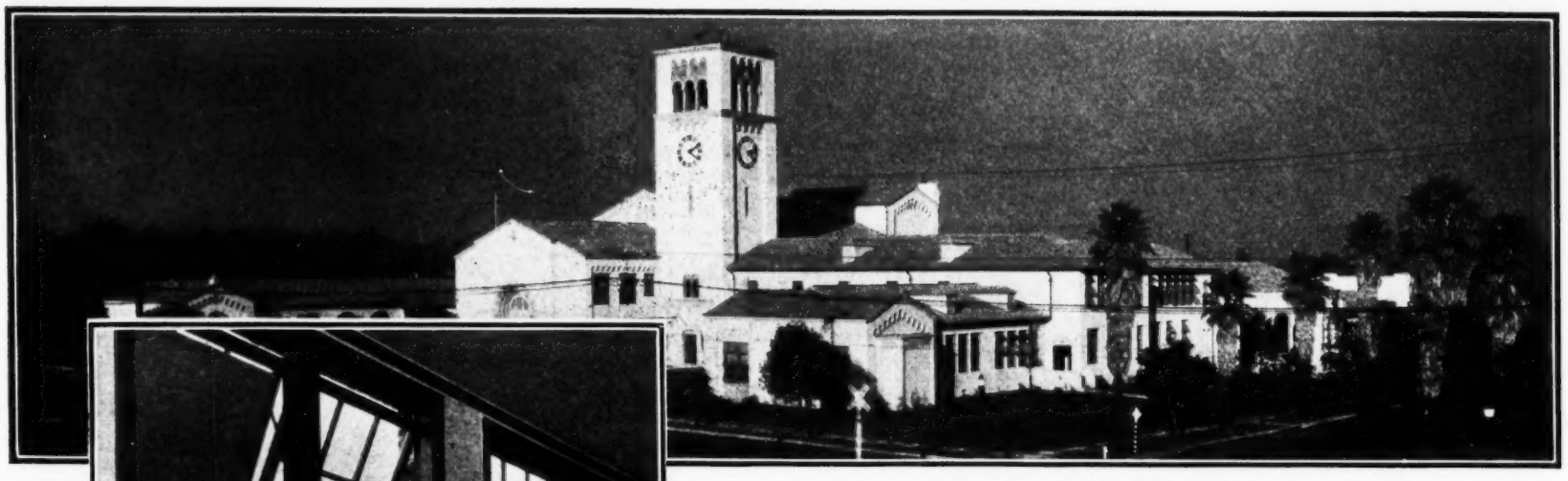

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(Concluded from Page 70)

themselves to the legal limit in order to employ a teacher for seven months.

With a two million increase in the state distributive fund, all of these districts which levy to the limit of the law will receive enough money to employ a teacher for the additional month without entailing any additional local taxation.

The remaining 1,414 districts with a seven months' term are to receive through the flat allowance, a sufficient amount to pay about one third of the teacher's salary for the extra month, and will be able to extend their term to eight months by a slight increase in the local taxation. It will be seen that the eight months' term bill does not work any hardship on any district in the state, and that it will go a long way toward equalizing educational opportunities for the boys and girls of the state.

NEW SCHOOL LEGISLATION IN ILLINOIS

—The Illinois legislature has recently passed a number of bills which will be placed in operation within the near future. The laws in their preparation and presentation to the legislature have had the encouragement and support of the legislative committee of the Illinois School Board Association. Among the laws, the following are of considerable importance for readers of the JOURNAL:

Senate bill 113: Prescribes the qualifications necessary before any person shall be issued a certificate to teach in the schools of the state. Certificates may be for life or limited in time and are classified according to the grade of school for which they are issued. Provides for the examination of applicants and for revocation of a certificate. The bill repeals an act to provide for the certification of teachers, which was approved in June, 1913.

Senate bill 399: This bill amends four sections of the free schools' act. It provides that trustees elected in 1930 shall serve for three years; that trustees elected in 1931 shall hold for four years; and that trustees elected in 1932 shall hold for five years. The law provides that elections shall be held biennially in the odd numbered years, and that successors of the trustees elected in the future shall hold for six years.

Senate bill 542: This law legalizes certain bonds of school districts having a population of more than 8,500 and less than 300,000 where the same, including the existing indebtedness, exceeds 2½ per cent of the assessed value of the district, but not in excess of the constitutional limit.

House bill 269: This law provides that in school districts coextensive with a city of less than 75,000 not organized under a special act, and not having the commission form of government, members of the school board shall be elected at the time of the general city election in April, instead of the second Saturday in April. A separate ballot is provided for the school election, but the polling places are the same as for the city election.

House bill 747: This law amends section 2211 of the state school law. It provides that the state shall pay from the state distributive fund to school districts, the tuition of pupils residing in state institutions, either as members of families employed there, or otherwise, other than state institutions located in a school district having a population of less than 1,000 and in which the state owns one eighth of the total land of the district.

CALIFORNIA SCHOOL LEGISLATION

The last session of the California legislature considered an unusually large number of school proposals. Some were enacted into law but many more were tabled. Among those passed was the so-called "school code," which will assemble all the laws bearing on the schools into one volume. Until the enactment of the bill the school laws were scattered in several codes.

The new school code is divided into six divisions, —pupils; administrative organization; the system of public instruction; financial support of the school system; the teaching force; environment and equipment.

The various laws in these divisions are further subdivided into chapters, articles, and sections, The sections are numbered in decimal procedure and as new material is added another number is added to the right of the decimal point. The indexing of the code will be so simplified that it should be possible for even the uninitiated to find sections of the law which they desire to know concerning school proposals.

Another important law enacted is one which provides $100,000 enabling a study of the entire school situation of the state. A commission of nine will secure experts to make the study.

Another new law will authorize the payment of expenses of school officials and employees while traveling in the interest of the school district, or in attendance at educational conventions.

Among the measures that met with defeat was the county unit bill. It was opposed by the rural districts. Another measure which was pigeonholed was the one seeking to legalize school fraternities.

STUDENT PATROLS ILLEGAL

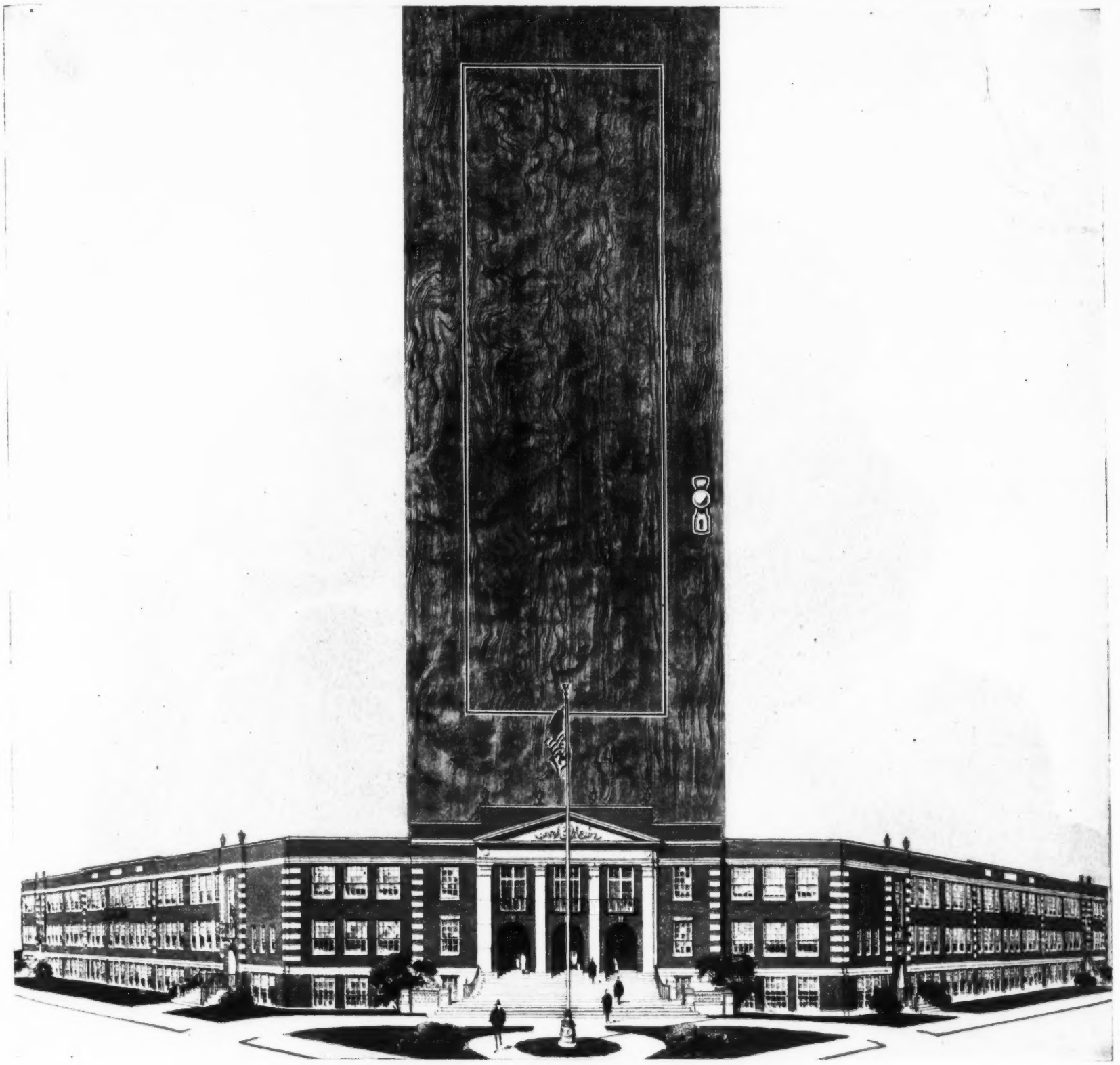
—Philadelphia, Pa. The committee on schools has received a legal opinion from Mr. Theodore F. Jenkins, solicitor of the board, in which he maintains that the board of education has no right to establish a student patrol. He holds that no such power is given by the statute creating the board, nor can it be implied from any of the powers given to the board.

Mr. Jenkins, in his opinion, points out that should the members of the board, or any committee, undertake to establish a system of police on the streets, or near the school buildings and grounds, and injury should occur in the operation of the system, the school district would not be liable for the damage, but each and all of the members of the board would be individually liable.

As a result of the opinion of its legal counsel, the school board has rescinded a previous report providing for the establishment of the safety patrol and ordered that the duties of the students be restricted to conform with the solicitor's opinion.

—Crookston, Minn. The city has a unique school situation, since it is divided into two school districts, namely No. 1 and No. 251, each of which includes a little rural territory. District No. 251 comprises one ward of the city, while No. 1 is composed of the remaining wards. District No. 1 maintains a high school and several elementary schools, with a total enrollment of more than 1,400 pupils. District No. 251 maintains an elementary school only, the high-school pupils from this section of the city attending school in Dist. No. 1 at the expense of the state. On the other hand, two adjoining rural districts have closed their one-room red schoolhouses, transporting their pupils in auto-busses to Crookston, and paying tuition at the rate of $1.50 per pupil per month. The plan in effect has proven very satisfactory over a period of several years.

—The Millar bill, recently introduced in the Wisconsin legislature, provides for the creation of a new state board of education of twelve members. Under the bill, the present state education department would be eliminated and the state superintendent would serve as the twelfth member of the board. The present department of vocational education, the boards of normal regents, and similar boards would be re-created, with their personnel appointed by the elected state board.



Hyde Park High School, Hyde Park, Mass. - McLaughlin & Burr, Architects.
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All-Relay Advantages

The following paragraph epitomizes the advantages of an ALL-RELAY AUTOMATIC TELEPHONE SYSTEM in its highly specialized application to School Requirements.

Speed; Accuracy; Economy; EFFICIENCY; Secrecy; Utility; Sturdiness; Durability; Reliability; Serviceability; freedom from Maintenance.

In the juxtaposite column appears No. 4 of a series of brief statements explaining the above-listed outstanding advantages of All-Relay Automatic Telephone Systems.

The North "All-Relay" Exchange is a complete Automatic Telephone System especially designed for schools. It meets school needs exactly, giving highest operating efficiency combined with lowest operating and maintenance costs.

The "All-Relay" School Telephone System requires no operator, is always on duty ready to give rapid, reliable and secret service at any time of the day or night. "All-Relay" stands for simplicity and the elimination of all complicated and troublesome station selectors. The latest dial type telephones are used.

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Efficiency is claimed for the All-Relay System installed in schools because it is a complete telephone system requiring no operator; it is ever on duty, is easy to operate, instant in service, free from mechanical intricacies and maintenance costs, and because it adds to the daily routine a measure of convenience not obtainable by any other single piece of apparatus.

Scores of well-equipped schools boast of the All-Relay System as an indispensable asset whose sterling merits have won for it a position of permanence.

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TEACHERS' SALARIES

ADOPT REGULATIONS TO CONTROL SATISFACTORY SERVICE OF NEW YORK CITY TEACHERS FOR SALARY INCREMENT

The board of superintendents of New York City has adopted regulations to control the declaration of satisfactory service of teachers for salary increments within the schedules, to become effective after September 1, 1930. The regulations are as follows:

1. The regulations shall apply to the services of teachers for each salary year after permanent appointment within a schedule, and shall continue throughout the span of the schedule under which the teacher is being paid.

The regulations shall be applicable to all regular, special and supervisory teachers, and to teacher-clerks, clerical assistants, laboratory assistants, and library assistants, financial assistants, placement and investigation assistants, in all kinds and types of school organizations, except that persons holding the following named positions shall be required to conform to the regulations, only in the years enumerated herewith, viz.; teacher clerks in elementary, junior high and parental schools in the fourth, seventh and ninth year of service as such; clerical assistants in the fourth, seventh and tenth year of service as such; teacher-clerks, clerical and financial assistants in vocational or trade schools in the fourth and seventh year of service as such.

The regulations shall not be applicable to principals, assistants to principal, first assistants, administrative assistants, and to teachers in charge of annexes.

2. In determining satisfactory service of teachers for the purpose of salary increments, the items of service to be considered and rated shall be: I—Professional attitude, II—Instruction, III—Discipline, IV—Personal attributes, V—Routine. Professional attitude, Instruction and Discipline are to be regarded as major considerations, as noted on the official rating blank.

3. No salary increment shall be given unless the teacher concerned receives a general rating satisfactory to the board of superintendents, based upon the above items.

4. The board of superintendents shall not consider a teacher's service as satisfactory for the purpose of a salary increment, unless and until the teacher concerned presents evidence of the successful completion of a course of study of thirty hours of cultural or technical study, approved by the board of superintendents, for the salary year, or alternate evidence as follows:

a) The successful completion of the written part of an examination for a higher license, may be credited as an equivalent course of study for the two salary increments next following the said completion.

b) The successful completion, within a salary year, of a research project, undertaken at the request of the superintendent of schools, or with his approval, or under his direction, may be credited as an equivalent course of study for one salary increment.

c) The publication of a book of professional or cultural value may be credited as an equivalent course of study for two successive salary increments, subject to the approval of the board of superintendents.

d) The holding of a master's degree in arts or science, from a college or university recognized by the board of regents, may be credited as an equivalent course of study for three successive salary increments.

e) The holding of a doctor's degree in philosophy or science from a college or university recognized by the board of regents, may be credited as an equivalent course of study for the entire span of a salary schedule.

f) A home-study extension course equivalent to thirty hours of cultural or technical study, if conducted by a college or university recognized by the board of regents, and if successfully completed by an examination, may be credited as an equivalent course of study for one salary increment, provided, however, that only two home-study extension courses shall be so credited during the entire span of the salary schedule under which the teacher is serving.

g) The giving of a course of thirty hours in a college or university recognized by the board of regents may be credited as an equivalent course of study for one salary increment, if approved by the board of superintendents.

5. Evidence of the successful completion of a course of thirty hours as specified in paragraph 4, or alternate evidence as specified in sections (*a*) to (*g*) inclusive, shall be presented by the teacher to the principal, or to a director concerned, for verification and approval when report on approval of service for salary increase is made. Said report, approved by the district superintendent, shall be forwarded to the division superintendent for presentation to the board of superintendents.

6. The courses of cultural or technical study required in paragraph 4 of these regulations shall be subject to the following conditions:

a) Approved courses, undertaken after permanent appointment within a schedule, and successfully completed within three years immediately prior to September 1, 1930, may be credited by the board of superintendents toward satisfactory service for salary increments after September 1, 1930, on the basis of thirty hours of study for each salary increment.

b) "A course of cultural or technical study approved by the board of superintendents" shall be understood to mean a course (1) conducted by a college or university recognized by the board of regents, or (2) conducted by an institution or association for the promotion of literature, art, science, history or similar purpose, chartered or registered by the board of regents, or (3) conducted under the direction of the board of education of the City of New York, upon the recommendation of the board of superintendents.

c) No credit for the purpose of salary increments shall be given for courses taken in excess of sixty hours within a year. A course of sixty hours shall be credited as the equivalent of the study requirement for two salary increments.

—Rock Island, Ill. The school board has given increases of $100 to a group of fifteen teachers who are among the oldest in point of service in the school system. In taking the action, the board suspended its rules, because under the new salary schedule, the increases would not have been possible without additional training by the teachers. All of the teachers had attained the maximum of $1,500 annually, and the new salary will be $1,600.

—Cambridge, Mass. The school board has adopted a recommendation providing that women teachers in the high school, grammar-school masters, and directors of art, music, and physical education be given flat increases of $100 per year.

—Chaffee, Mo. Upon the suggestion of Supt. Charles Scott, the school board has approved a new salary schedule for the teaching staff of the schools.

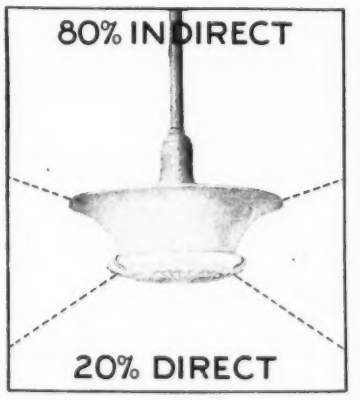
Whose Fault?

STUPID, TROUBLESOME, "BAD". Getting worse every year. Already too big for his grade, and about to fail again. Costing his school heavily in repeated teaching.

Yet he may not be naturally dull or bad at all. He may be merely one of the twelve per cent of school children who have defective vision. An oculist might help him greatly—or better school lighting.

Eye-strain inevitably causes nerve strain and fatigue. It makes children tired and cross when they try to concentrate on classwork and lessons. Often they seek relief in mischief.

Good school lighting inevitably helps these children who have weaker eyes. It gives them a more equal chance. It actually saves money by decreasing expensive student retardation.



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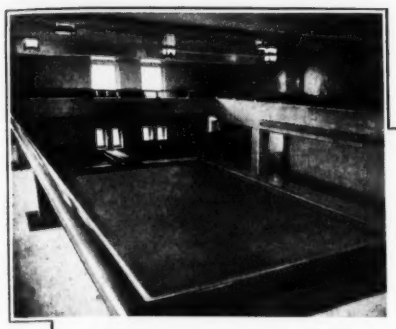
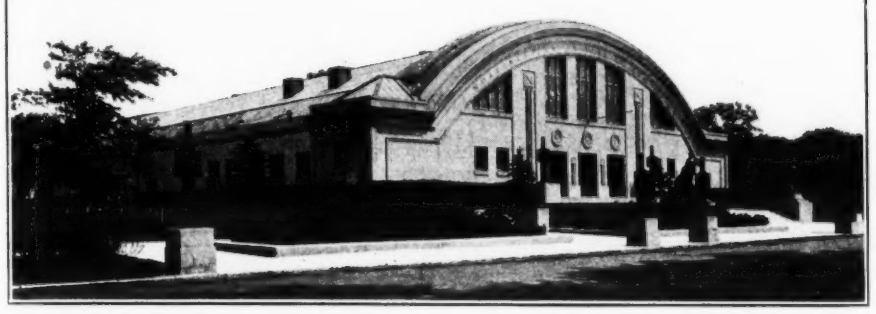


Left—Swimming Pool Equipped with W & T Chlorinator

Below—Patten Gymnasium Northwestern University Evanston, Illinois



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SCHOOL FINANCE AND TAXATION

NEW YORK SCHOOL EXPENDITURES

—The board of education of New York City expended a total of $147,848,700 for the support of the schools, including sites and buildings, during the school year 1928, according to an annual report recently published. The expenditure for 1928 was the largest since 1924, when $157,187,153 was spent. In that year capital outlay amounted to $59,542,889, where only $24,554,431 was expended in 1928.

The salaries of the supervising and teaching staffs, which took 81.137 per cent of the expenditures, exclusive of capital outlay, in 1924, accounted for 83.151 per cent in 1928. The actual expenditures were $79,225,557 in 1924, and $102,520,102 in 1928. In 1928 for the first time the payroll for teaching exceeded $100,000,000.

For the operation of the school plant, including custodial services and payments under the workmen's compensation law and the veterans' act, fuel and water consumed, $6,961,365 was expended. General repairs to buildings and equipment took $4,214,597.

The administrative expenses were rather low. For general business and educational administration, $3,919,283 was spent. This is only a little more than two per cent of the school dollar.

The total budget expenditures increased from $97,644,264 in 1924, to $123,294,268 in 1928.

FINANCE AND TAXATION

—Rock Island, Ill. The school board is facing a lack of funds and is convinced that an increase in the school tax is a necessity. Reports at the meetings of the board showed that each year the school system has been in debt, thus entailing further indebtedness in the form of interest on money borrowed to make up the loss.

While no definite plan has been proposed for meeting the financial situation, one of two alternatives suggests itself: either the taxable property valuation must be increased, or the schools must offer less in the way of educational facilities. According to the reports for last year, each pupil cost the schools $88.58, or a shortage of $10.80 for each.

—New York, N. Y. Through advantageous contracts entered into with the coal contractors for the delivery of fuel next winter, it will cost the school board $400,000 less to heat the schools during the year 1930 than it cost in 1928-29, according to a report of superintendent of school supplies, Patrick Jones. Superintendent Jones was granted an allowance of $1,250,000. He also received an item of $1,290,000 for general supplies and textbooks for the schools.

—Adrian, Mich. The school board has asked the taxpayers for a tax of $181,000, which is a reduction of $24,000 from the tax of $205,000 for last year. The budget includes a short-term loan of $40,000 voted by the taxpayers in May last.

—Owosso, Mich. The school board has approved a budget calling for an appropriation of $308,720 for the school year 1929-30. It is expected that the estimated receipts of $95,562 will reduce the amount to be raised by taxation to $213,158.

—Kenosha, Wis. The school board has asked the city council to determine the use to which a surplus of $65,927 in school funds is to be put. The surplus is from funds appropriated for 1928. The board has suggested two possible uses for the fund, one the reduction of the bond issue, and the other the application of it to the general fund for maintenance purposes.

—Sioux City, Iowa. Economy in financial affairs has been indicated in the annual report to the board of education. With a tax rate two mills lower than the previous year, the board has been able to retire $140,000 in bonds, and has acquired $40,000 in real estate. In past years, the average amount of retired indebtedness has amounted to $100,000.

—Shaker Heights, Ohio. The school board has approved a budget amounting to $1,226,000.

—Ann Arbor, Mich. The school board has adopted a budget of $831,119 for the school year 1929-30. The budget represents an increase of 2.6 per cent, or $21,190. The new budget shows increases in the cost of administration of $1,275, in auxiliary agencies of $4,160, in fixed charges of $700, but it also shows decreases in the operation of the school plant of $2,732, and in maintenance of $288. The two largest items are $453,403 for instruction service, and $170,165 for debt service.

—Chicago, Ill. The board of education, on July 9, obtained from the city comptroller the right to dispose of more than $40,000,000 in tax-anticipation warrants for the relief of the educational, building, and playground funds. The action was the result of a conference of the comptroller, President Caldwell of the school board, and a group of bankers who had agreed to advance the money to the schools.

Under the arrangement, the entire sum will be paid to the credit of the school board at a specified time, instead of being turned over at intervals as the need for funds arises.

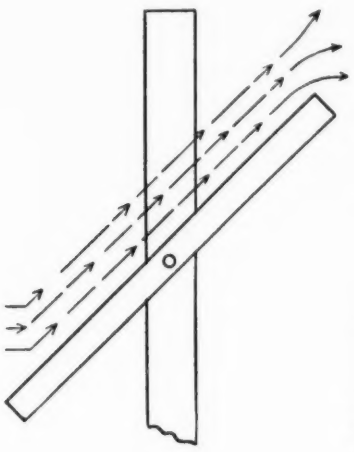
The money will be divided as follows: Thirteen million dollars to the building fund; approximately $500,000 to the playground fund, and the remainder, in the neighborhood of $27,000,000, to the educational fund. The borrowing power of the board of education for the current year will be exhausted with the consummation of this loan, according to officials of the board.

It is expected that the first move following the payment of more than $5,000,000 in outstanding contractual obligations, which will permit the resumption of work on fifteen school buildings in various stages of completion. Certificates of indebtedness, or "script," which have been issued to contractors who continued work after money in the building fund treasury was exhausted, will be redeemed at face value plus accumulated interest.

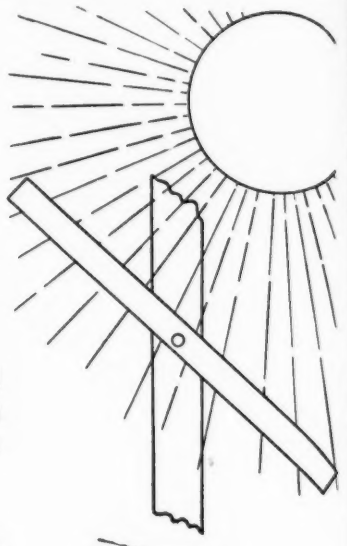
—Belleville, Ill. A recent report of Supt. H. V. Calhoun shows that the average cost of educating each pupil in the schools is $61.27. The total valuation of the school property of the city is $829,027. Belleville, with a tax rate of $2.09 per $100 of assessed valuation, ranks fourth among the list

IMPORTANT SCHOOL-BOND SALES
During the Month of June, 1929

California, Ventura Co., Union High School District	$ 300,000
Massachusetts, Westfield, High School	300,000
Michigan, Hillsdale, School District	285,000
Missouri, Kirkwood, School District	250,000
Missouri, Moberly, School District	490,000
New Jersey, Montclair, School	254,000
New York, Bolivar, Genesee and Clarksville, Central School District No. 1	499,200
New York, Buffalo, General School Improvement	1,000,000
New York, Glen Cove School	300,000
New York, Mount Vernon, School	721,000
New York, New York, School Construction	4,100,000
New York, Persia, Union Free School District No. 1	300,000
New York, Rochester, School Construction	400,000
New York, Rye, Union Free School District No. 4	310,000
Ohio, Akron, School District	500,000
Pennsylvania, Sharon, School District	425,000



Williams Reversible Window Equipment Combines the Essentials of Fresh Air and Plentiful Sunlight

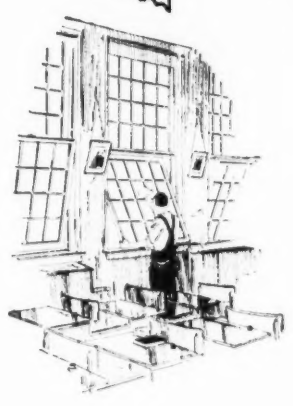


WILLIAMS Equipped Windows are permitting fresh air and plentiful sunlight to enter thousands of schoolrooms throughout the country. They allow the maximum of fresh air to enter while completely eliminating drafts.

Williams Reversible Windows are cleaned from the INSIDE, in from 40% to 50% less time than is required to clean other windows, thus permitting more frequent cleaning at a considerable saving in window cleaning costs. More sunlight comes into rooms when windows are clean. Economy in cleaning costs enables Williams Reversible Window Equipment to pay for itself in a few years.

THE WILLIAMS PIVOT SASH COMPANY
E. 37th St. at Perkins Ave., Cleveland, Ohio.

For twenty-five years manufacturers and installers of Reversible Window Equipment.



Williams Reversible Windows deflect air currents to the top of the room—giving draftless ventilation.

WILLIAMS REVERSIBLE
WINDOW EQUIPMENT
Clean Your Windows from the Inside

Williams Window Equipment makes it possible to completely reverse both sash for cleaning from the inside.

of cities of 10,000 or more population in the state.

—Highland Park, Mich. The school tax rate for the fiscal year is $11.40. The total amount to be raised by taxation for the schools is $1,545,739.

—Eugene, Oreg. Radical reductions in school expenditures, including the closing of one school and the curtailment of repairs and supplies, has been planned as a result of the failure of the voters to approve the school budget beyond the 6-per-cent limitation. It is the purpose of the board to reduce the deficit from $72,000 to $42,000 under the new plan, so that it will be necessary to operate the schools on $22,000 less than last year.

—Tacoma, Wash. The citizens have issued petitions calling for a special election to vote on an additional tax levy to provide the schools with funds.

—Tampa, Fla. The school board of Hillsborough county has adopted a budget of $887,829 for the school year 1929-30. Of the total, the largest item is $683,329 for teachers' salaries. Including $115,000 for outstanding bonds and time warrants, the total for operation and administration costs is estimated at $205,000. The estimated income for the general school fund totals $919,233.

—Ogden, Utah. The school board has adopted a budget, calling for an expenditure of $786,000. The largest item in the budget is $528,300 for instruction expenses.

—Granite, Utah. The school board has adopted a budget amounting to $672,165 for the school year 1929-30. The largest item is $419,375 for salaries, which is an increase of $59,375 over last year.

—Salt Lake City, Utah. The 1929-30 school budget calls for an expenditure of $2,864,800 for maintenance and operating expenses. The principal item is $1,917,000 for instruction purposes. Other large items are $215,000 for operation of buildings, $180,000 for the building fund, $185,000 for the interest fund, and $133,000 for building maintenance.

—Pittston, Pa. With over $170,000 outstanding in delinquent taxes, the school board was compelled to negotiate a short-time loan of $20,000 to meet the current expenses up to the close of the school term. Mr. John Kehoe, a member, protested against a loan on the basis that the school system should not be compelled to pay 6 per cent for money with thousands of dollars owing to the district. The board later approved Mr. Kehoe's suggestion that the city treasurer furnish the school board with a list of delinquent taxes for the past three years. It is estimated the amount due the district is over $170,000.

—Bellefontaine, Ohio. The school board has adopted a budget of $160,290 for the school year 1929-30.

—Norfolk, Nebr. The school board has adopted a plan for paying off its bonded indebtedness amounting to $339,000. Under the new plan, it will be necessary to secure a tax levy of three mills, to establish a sinking fund of $33,000 each year. This amount is $7,000 more than the board has paid for the past several years, but it makes it possible to eliminate the indebtedness through a strict program of economy.

It appears that, since 1922, the board has paid off $182,000 in schools bonds, or an average of $26,000 a year. On July 1, the board obtained $29,000 in additional money, which has been set aside for retiring the bonds of the 1919 issue.

—John S. Vaughn, state superintendent of Oklahoma, has prepared a table showing the gross inequalities in the wealth of rural districts. There is now a 15 mills assessment for school purposes.

There are 17 one-teacher schools in districts with less than $20,000 assessed valuation. A $20,000 valuation, if every penny levied were collected—and it never is—would bring in only $300.

There are 12 two-teacher schools in districts with assessed valuation of under $30,000. That means the utmost possible income of these districts would be $450.

The largest number of one-teacher schools are in the districts with not to exceed $125,000 valuation. Even in these comparatively opulent districts the outside possible revenue is $1,875.

—In the state of Kansas the schools receive 45 cents of the tax dollar. Local support constitutes 99.3 per cent of the several school funds. The problem of securing a better school support has been under consideration. The Topeka Capitol says:

"In its hearings and in many communications the state tax commission has heard a universal sentiment—that the people of Kansas do not want higher taxes, that property is taxed all it can reasonably stand. There is just as general a feeling that proposals of different and new taxes mean more taxation—on property. But unless some means may be found for wider tax diversity, for sources of revenue not burdensome either to property or business, the constantly increasing cost of government will work a greater and greater hardship on property in Kansas and on doing business in Kansas."

—Ogden, Utah. The school board has adopted a budget of $316,350 for the school year 1929-30, a slight decrease over last year.

—Mishawaka, Ind. The school system is facing a lack of revenue due to a decrease in assessed valuation and an increase in school enrollment. In 1927 the reported assessment valuation was $40,778,000, and in 1929 the estimated valuation is $37,758,760.

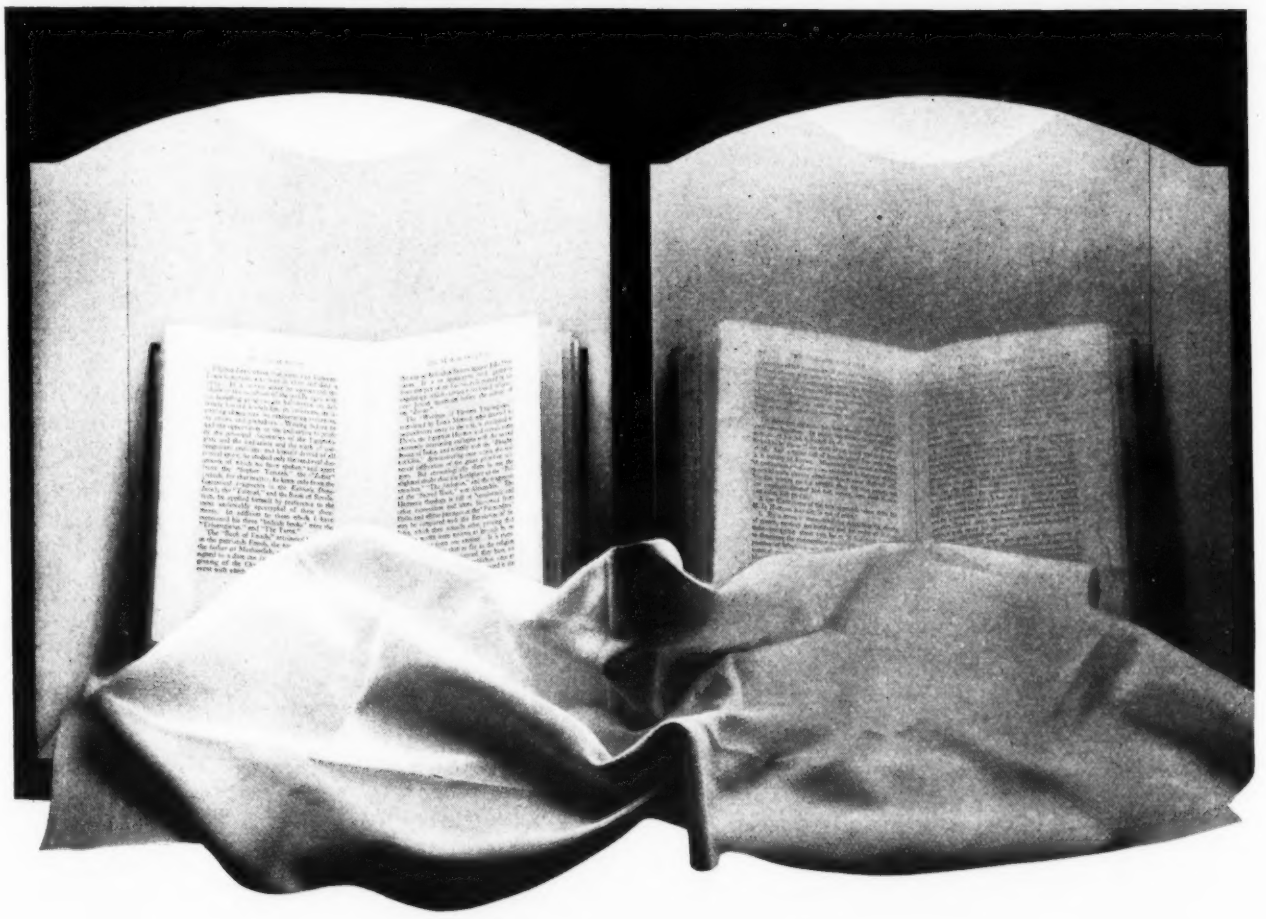
A table of comparisons of tax levies, prepared by Supt. P. C. Emmons, shows that Mishawaka pays less taxes per capita than any of the seven other Indiana cities studied. It is estimated that an increase in the tax levy from five to seven cents would provide sufficient revenue to maintain the schools at the rate of efficiency which the school system has enjoyed in the past.

—Portland, Oreg. On June 4, the voters of the city approved a tax levy of $1,625,000 for the operation and maintenance of the schools during the school year 1929-30. Of the total, $1,325,000 is for operation, and $300,000 for the school-building program.

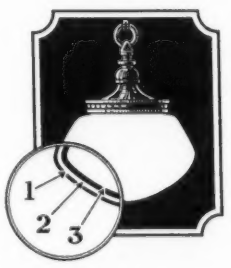
The total cost of operation of the schools is a little over $5,000,000, and since the school board cannot levy all that it needs under the law, it is still short $1,325,000. To meet the situation, the board has found it necessary to levy an amount each year in addition to that required for the operation of the building program in order to keep on the "pay-as-you-go" basis.

At the present time, the school board is carrying out a fifteen-year building program, which was begun in 1922 following a survey by the U. S. Bureau of Education. The entire program, which was divided into three five-year periods, called for an expenditure of approximately $15,000,000. In 1924, the taxpayers authorized a $5,000,000 bond issue; in 1926 they authorized a second bond issue of $4,500,000, and this year the program calls for a $5,500,000 bond issue for the third five-year period. It is the purpose of the school officials to avoid the necessity of asking for this amount by each year voting a tax levy of $300,000. This plan has been followed for the past three years and it is believed that a continuance of the plan will make it possible to carry out the building program without a further sale of bonds. At the recent election, the vote on the tax levy was four to one in its favor.

There Is a Difference in Lighting Glass



CELESTIALITE *Demonstrates Superiority*



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three-layers:

[1] A layer of crystal clear transparency—for body and strength.

[2] A layer of white glass—to diffuse the rays and soften the light.

[3] A layer of blue glass — to whiten and perfect the light.

The result is a soft white light that safeguards the eyesight.

Mail the coupon to the right for our illustrated booklet "Out of the Darkness" and a fragment of Celestialite Glass. For a private view of our demonstrating booth write us on your letterhead.

Educators set standards of their own, and they are standards worth following for they are based on scientific tests and measurements.

After careful tests Celestialite lighting globes were selected by such universities as Wesleyan, Princeton, Virginia, Pennsylvania, College of the City of New York, Stevens Institute of Technology, Rensselaer Polytechnic Institute, and many other colleges, and primary and high schools.

The test illustrated above (which we shall be glad to make in your presence) admits of no dispute. In this test two cabinets of the same size, shape, design, and interior paint finish are lighted with identical lamps. The lamp on the left is encased in a Celestialite lighting globe, the one on the right is encased in an ordinary globe.

Whether you are examining printed pages, fabrics, jewelry, or anything else you care to test—under Celestialite—type is clearer—blueprints are more distinct—a white handkerchief is snowy white—not yellow. Blue is blue—not black. This difference is due to Celestialite's soft, white, "Next to Daylight" illumination. Celestialite is superior—demonstrably so.

Many of our distributors have these booths available for special tests of this kind, and will be glad to give you a demonstration.

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(Registered and Patented)

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Kindly send me free copy of your booklet "Out of the Darkness," and fragments of CELESTIALITE showing its three-layer construction.

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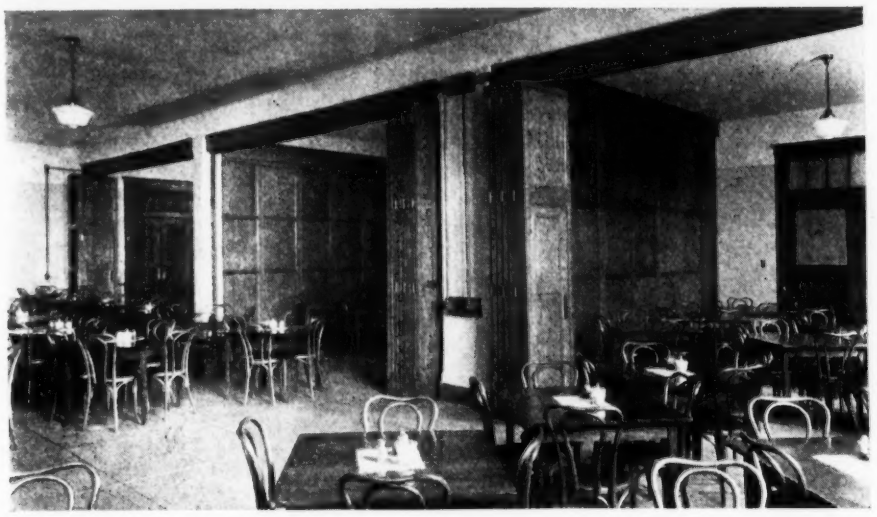
(Sound Insulated)

have a positive Roller Chain Drive



CIRCLE A Folding Partitions are a complete improvement over any folding partitions on the market. Mechanically operated by roller chains—not ropes or cable—hence the drive is positive.
Patented hanging method insures easy operation. A special sealing system at floor, walls and ceiling effectively stops noise, odors and light. Doors are thoroughly insulated against sound.
There are no dirt-harboring tracks with Circle A Folding Partitions. All workmanship and materials are in keeping with highest type of cabinet work. Furnished in type of construction suitable for any school, hall or other requirement. Send for details.
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School Hygiene and Sanitation

ACUTE RHEUMATISM IN CHILDHOOD AND ITS SEQUELAE[1]

The marked frequency of damaged hearts as sequelae of acute rheumatic fever in children has caused two conditions to be inseparably associated in the medical mind. From the standpoint of prevention it is fortunate that the lay mind is becoming gradually awakened to the gravity of rheumatic manifestations in children and to their association with heart disease.

Miss E. Blanche Sterling, acting assistant surgeon for the United States Public Health Service, in a study of the effects of this disease on children, has concluded that, as a cause of death among children, acute rheumatic fever does not take the toll of child life that can be ascribed to any one of the common infectious diseases of childhood. On the other hand, heart disease (not including angine pectoris, which is rare in childhood), in the particular period considered, causes almost twice as many deaths as scarlet fever, four fifths as many as measles, five sevenths as many as whooping cough, and half as many as diphtheria.

It is not to be assumed that all cases of heart disease in children below 14 years of age are due to rheumatism, and the figures simply indicate the importance of heart disease as a cause of child mortality in the United States. It has been estimated that 75 per cent or more of children under 10 years of age are likely to have an involvement of the heart in the course of an attack of acute rheumatism.

In a study of over 230,000 school children in Philadelphia, 0.718 per cent of them had heart defects. In the same year over 290,000 examined in New York City showed an incidence of heart defects equal to 1.344 per cent of the total number. Among 1,671 high-school entrants in New York, 6.798 per cent suffered from heart defects.

An examination of 1,061 preschool children in New York brought to light the fact that 0.94 per cent had defective hearts. In Gary, Ind., over 3,000 children from 2 to 7 years of age were examined, and 3.2 per cent were found to have defects of the heart.

Generally speaking, it is estimated that in this country the groups of children examined indicate that there is an incidence of from 0.7 to 2 per cent of heart defects among children from birth to 14 years of age.

Kaiser tested 800 children, from 1 week to 16 years of age, by the Birkhaug test, with intraquadermal injections of toxic filtrate from cultures of the streptococcus isolated by Birkhaug. Approximately 32 per cent of all the children tested reacted positively to the test. Among those with no history of rheumatism or of repeated attacks of sore throat, 20 per cent were positive; among those with a history of repeated attacks of sore throat, 35 per cent were positive; and among those with a history of rheumatic infection, 72 per cent gave a positive reaction.

Studies of the modes of infection in acute rheumatic fever indicate the association of tonsilitis, pharyngitis, and the common cold with attacks of rheumatism. The consensus of opinion as to the value of tonsillectomy appears to be favorable. It is felt by some investigators that the tonsillectomized child not previously infected had a better chance to escape infection over the same period of time than has the child whose tonsils have not been removed. An analysis by Kaiser of 478 cases of carditis showed that in 83 per cent of the cases the condition developed before tonsil removal, and in 17 per cent following tonsillectomy. Based on a study of 20,000 tonsillectomized children, he concludes that the tonsil is a factor in the causation of rheumatism, scarlet fever, and chronic heart disease.

The general program for the prevention of acute rheumatism in children includes the avoidance of infection, especially of the upper respiratory tract, removal of the foci of infection, frequent examinations of children, careful hygiene, avoidance of the possibility of contact infection. Among the therapeutic principles laid down for the care and treatment of rheumatic children are the following: (1) General hygienic measures in the home, sunlight, ventilation, avoidance of overcrowding, suitable food, adequate rest, outdoor activity; (2) Regular attendance at clinic in winter and at long intervals during the summer; (3) Local measures—dental care, and tonsillectomy in most cases, with nose and throat conditions kept clear by antiseptic instillations and gargles; (4) Acute infections of the upper respiratory tract are regarded as serious and are so treated; (5) Treatment of chronic infection in the nose and throat is not altogether satisfactory, but it is thought that general hygienic measures and local treatment are of assistance.

[1]An abstract from the United States Public Health Report for June 21, 1929.

REORGANIZE SCHOOL LUNCH SERVICE IN NEW YORK CITY

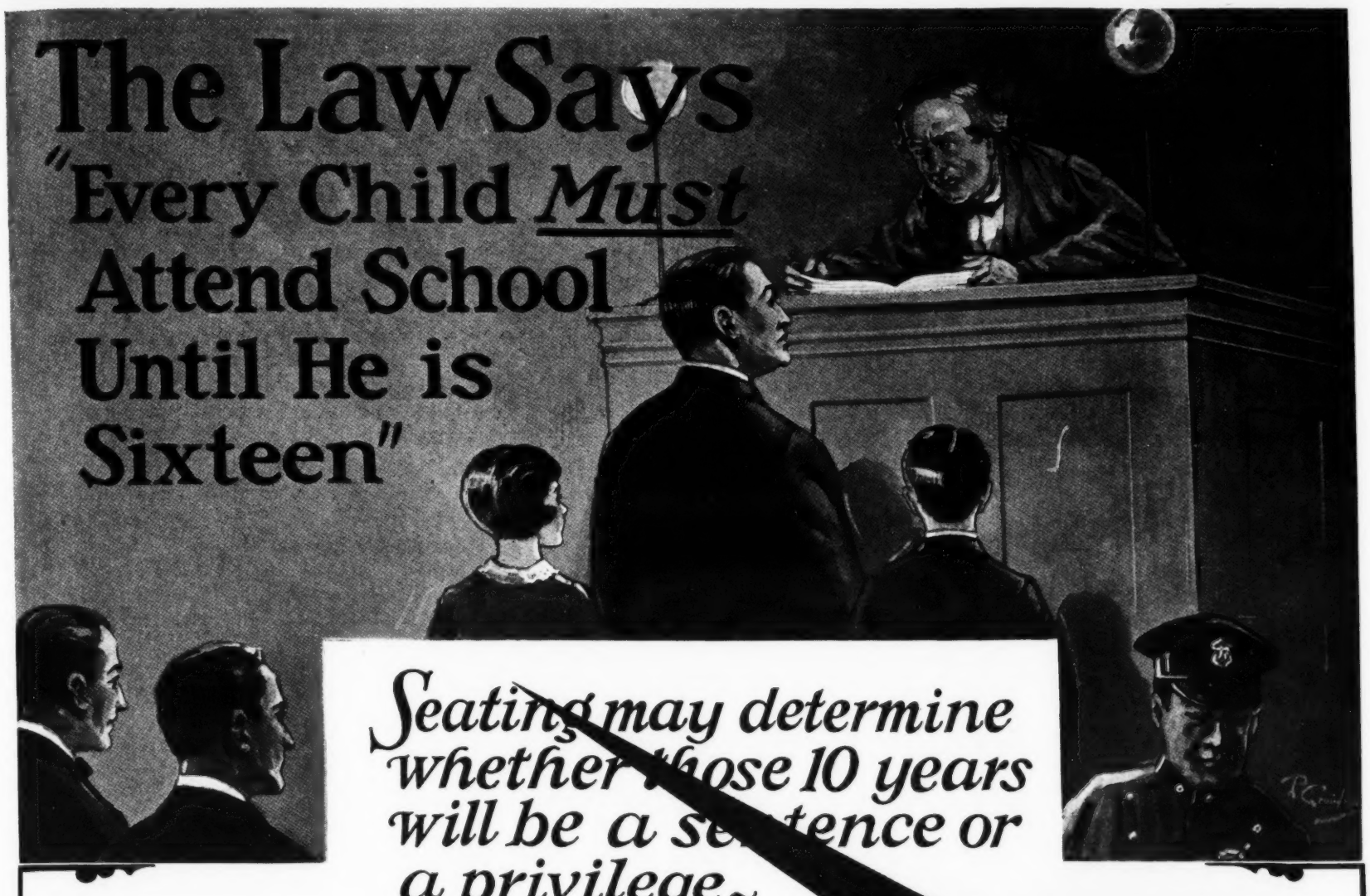
—Supt. W. J. O'Shea and the board of superintendents of New York City have taken action to remedy unsatisfactory conditions in school lunchroom service, following reports of shortcomings by the joint committee of education. The committee, of which Mrs. R. H. Bacon is chairman, had reported that lunches served in the schools lacked sufficient hot foods, that there is too much candy, a lack of vegetables, and a scarcity of chairs.

The survey covered 64 schools, which were visited during April and May. As a result of the survey, the education department has ordered the elimination of the serving of lunches in elementary schools by concessionaires and the service will be taken over by the department of homemaking.

During the next school year, concessionary lunch service in five schools reported by principals as being no longer necessary will be abandoned, and similar service in ten schools will be taken over by the concessionaires.

It is planned to operate the standard hot-lunch service in five of these schools, and a sandwich and milk service temporarily in the others. A new center, with kitchens and tables and fixed equipment, will be opened in four centers.

The two-year program outlined by Associate Supt. John Wade has been approved, the committee authorizing the use of profits accruing from present service to effect the extension. The total cost of the two-year program is estimated at $22,096. The surplus now being used to establish new centers will, when the centers are in operation, be used to reduce overhead charges carried in the budget. It is expected that with the completion of the present program of extension, the entire service will in time become self-supporting.



Seating may determine whether those 10 years will be a sentence or a privilege~

Tubular Steel Combination Desk No. 101—An old time favorite in type, but built according to modern principles of excellence. A good all purpose desk when arranged in sizes providing for varying ages and heights of pupils.

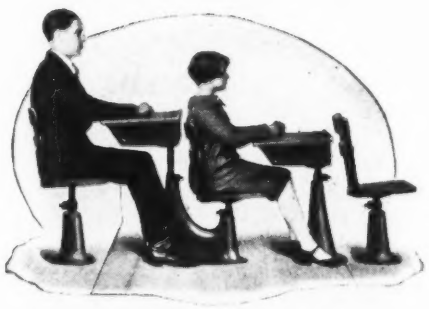
TEN years of school attendance will influence or form the posture habits of a lifetime. With compulsory education, posture principles and comfort in seating should be considered.

Good posture promotes good health. Correct seating is essential to good posture. Research and investigation by specialists in seating posture and schoolroom practice have fixed certain principles governing posture.

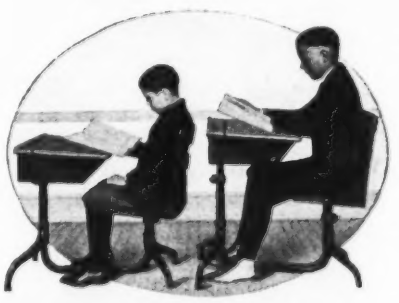
School seating should be—can be—constructed and proportioned in accord with accepted posture principles. "American" steel school seats are so built.

The facts are available. Investigate. Become informed that you may distinguish between seating truths and selling propaganda.

Have you any seating in your school like this? Can a child make real progress or love his work under such conditions? Circulation retarded, eyes strained, all principles of health and hygiene violated—is it economy to use such seating? This is a photograph of a school in a prosperous community.



Steel Adjustable Desk and Chair, Pedestal type, No. 104—Where fixed desks (permanently placed) are preferred or best suited to the work, this popular adjustable type meets all principles of correct sizing and posture.



Universal Desk No. 134—Two boys of the same age, in the same class. A few movements of an adjustment wrench, and both were seated comfortably and without danger of developing incorrect posture habit. Such furniture contributes to school efficiency.

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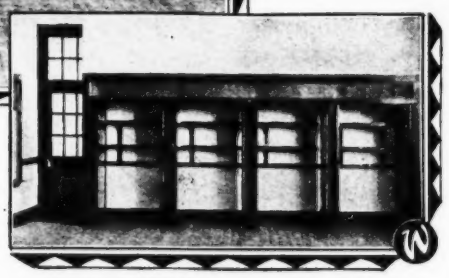
FREE—Any or all of the following pamphlets available to school officials and teachers interested in posture and seating. They constitute conclusions reached by a seating authority, Dr. Henry Eastman Bennett, following exhaustive research and study.

1—Seating Equipment for High Schools.
2—Seating Arrangements in the Classroom.
3—School Seats Too High.
4—Why Tables and Chairs in the Classroom.
5—Uses and Limitations of Movable School Seating.
6—The Buying of School Equipment.
7—A Study in School Posture and Seating.
8—Hygiene of the Seat Back.
9—School Posture in Relation to Visceral Organs.
10—Scoliosis and School Seating—A Study in Arm Rests.
11—Left Handedness.
12—For the Comfort of the Crippled Child.
13—The Height of Kindergarten Chairs.
14—Grade Distribution of School Desk Sizes.
15—Tablet Arm Chairs—Their Use and Abuse.

Wilson

HYGIENIC SCHOOL WARDROBES

Wilson Hygienic Wardrobes with practically continuous blackboard in St. Anthony's School, Gardenville, Baltimore, Md. Lucius R. White, Jr., Architect.



Note that blackboard panels face divisions when doors are opened.

Lower Construction Costs . . . Eliminate Cloak Rooms

SCHOOL Boards the country over are specifying Wilson Hygienic School Wardrobes in preference to the old-time cloak rooms.

Important construction costs are thus saved. For instance, in a classroom 29′ x 22′ with 12′ ceiling, the substitution of a Wilson Hygienic Wardrobe for the cloak room saves $120 to $187 per room.

Wilson Wardrobes, made by pioneers in this field, have proven best during a half century of service.

All Wardrobes are installed under our own supervision and are guaranteed for one year.

For full details as to advantages and savings, descriptions of various types, etc., send for catalog No. 14.

Many Points of Superiority

When the doors of the Wilson Wardrobes are open, blackboards are protected against rubbing off of writing or designs by pupils clothing upon entering or leaving the wardrobes.

When open, the doors project only 2½″ into the room. This affords ample aisle space and allows classrooms to be made smaller than if wardrobes were used in which the doors projected further into the room; another saving in cost and space in addition to the saving made by eliminating cloak rooms.

Doors may be cut off at bottom for ventilation, or grilles may be introduced for the same purpose. Wardrobes are connected with ventilating system at the ends or overhead.

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11 East 38th Street New York City
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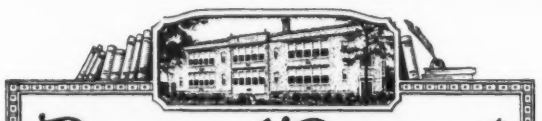
OVER FIFTY YEARS IN BUSINESS



Personal News of School Officials

MR. OFFER APPOINTED BUSINESS MANAGER AT SPRINGFIELD, ILL.

Mr. Henry W. Offer, on June 19, was appointed manager of the board of education at Springfield, Ill. Prior to taking over the duties of his office on July 1, Mr. Offer made a survey of the functions of the business office of the school board for the purpose of determining his exact duties, his relations to the board, and his relations to the superintendent as chief executive of the school system.

Mr. Offer is 47 years of age and a native of Illinois, and received his education in the schools of Alton. In 1901, he came to Springfield as an employee of the Sattley Manufacturing Company. In 1904, he became associated with the Marine Bank of Springfield, where he remained until 1920, when he became assistant cashier of the Commercial Trust and Savings Bank.

Mr. Offer has long taken an interest in educational affairs and is by inclination and personality adapted for public executive work. His appointment is the culmination of a year's effort on the part of the board of education to place the business affairs of the schools on a sound, progressive basis.

NEWS OF SCHOOL OFFICIALS

—Mr. Lindley W. Baker has been reelected as a member of the Cambridge-Jackson township school board of Cambridge City, Ind., for another term of two years. Mr. Baker has completed his second term as president of the board. Mr. H. T. Kepler was reelected as secretary, and Miss Anna E. Petro as treasurer.

—Mr. W. G. Greenquist has been reelected as treasurer of the Union high school district at Florence, Wis.

—The president and treasurer of the union high school district at Roberts, Wis., have been given increases of one hundred per cent in salary. Mr. H. A. Rundell has been reelected as president of the board.

—Dr. W. M. Wochos has been reelected as president of the school board at Kewaunee, Wis.

—The school board of Lansing, Mich., has reorganized with the election of Mr. S. D. Kelley as president; Mr. R. W. Cooper as secretary, and Mrs. F. C. Aldinger as treasurer. Mr. L. C. Moore is the new member of the board, succeeding E. M. Hunt.

—Mr. Elmer Hein has been reelected clerk of the school board at Reedsville, Wis.

—Mr. Robert Rohm has been elected president of the school board of Woodlawn, Wis. Mr. F. C. Mueller was reelected clerk, and Mr. Fred Bohl was elected treasurer.

—Mr. Matt Ortner has been elected secretary of the school board at Barclay, Iowa.

—Mr. C. C. Brown has been elected secretary of the school board at LeClaire, Iowa, succeeding J. A. Meyer, who retires after a service of 27 years.

—Mr. C. S. Galiher has been elected secretary of the school board of Iowa City, Iowa, succeeding J. White Brown, who retired after a service of three years.

—The school board of Rock Island, Ill., has reorganized with the election of Mr. J. F. Witter as president, and Mr. E. E. Burch as secretary. Mr. A. H. Bowlby and Mr. J. G. Huntoon were elected as new members, to succeed Mrs. M. A. Hollingsworth and Mrs. F. D. Seward.

—The school board of Bay City, Mich., has reorganized with the election of Mr. Adolph Blanchard as president; Mr. H. S. Smith as vice-president; and Mr. G. C. Laing as clerk.

—Racine, Wis. The school board has reorganized with the election of Mr. W. F. McGregor as president, and Mr. H. O. Strand as vice-president.

—The school board of Madison, Wis., has reorganized with the election of Mr. J. P. Butler as president; Mr. H. C. Schenk as vice-president; Mr. F. W. Erickson as secretary; and Mr. G. W. Stephens as treasurer. Mr. M. E. Johnson was reelected supervisor of school buildings and grounds.

—The board of education at Baraboo, Wis., has reorganized with the election of Mr. E. P. McFetridge as president, and Mr. Oscar Altpeter as vice-president.

—At the annual meeting of the school board of Pontiac, Mich., Mr. A. L. Moore and Mr. A. G. Nicolai were elected to membership for terms of four years each, beginning July 1. The new members have been elected to succeed Mr. Albert Weber and Mr. Otto Sachse. Mr. John F. Stewart was elected president; Mr. B. C. Campbell, vice-president; Mr. C. K. Patterson, secretary, and Mr. A. G. Nicolai, treasurer of the board.

—The school board of Rochester, Minn., has reorganized with the election of Dr. A. H. Sanford as president, Mrs. Helen B. Judd as vice-president, and Mr. R. W. Chadwick as clerk of the board. Mr. Lester Fiegel and Mr. Walter Fratzke were appointed as members.

—Mr. E. W. Spring has been appointed a member of the school board at Crookston, Minn., to succeed S. A. Erickson.

—Mr. Walter N. Bercaw has been reelected as president of the school board of Hammond, Ind., for a fourth term. Mr. Bercow has been president and member of the board for the last three years.

—Mr. C. O. Pederson has been elected a member of the school board at Marinette, Wis., to succeed F. M. Johnson.

—Mr. Leslie I. Combs of Gary, Ind., has been appointed a member of the board of school trustees, to succeed Mr. H. G. Hay, Sr. Mr. Combs will serve for the remainder of Mr. Hay's unexpired term.

—Miss A. Marion Merrill, who has been elected a member of the school board of Somerville, Mass., was for 25 years a teacher in the local high school. Miss Merrill was educated in the Mary Lyon private school in New Hampshire, in Boston University, and the Massachusetts Institute of Technology. She was an instructor in the high school up to her retirement in 1923. As head of the English department, she also directed the teaching of English in the junior high schools of the city.

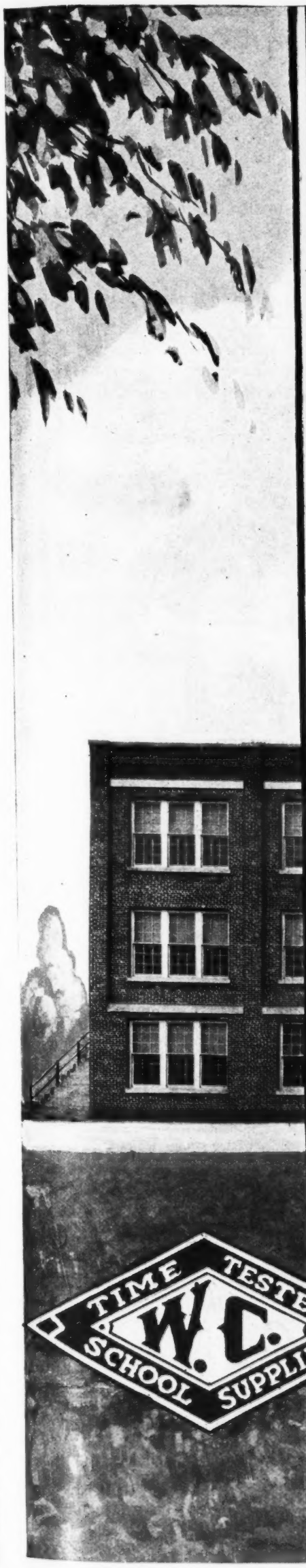
—Mr. Albert F. Larson, of Sioux Falls, S. Dak., has been elected a member of the board of education, to succeed F. G. Warren.

—Mr. Fred W. Weaver, a member of the school board of Brazil, Ind., for the past three years, was recently reelected for another term of three years.

—Mrs. Irene Erlbacker and Mr. E. J. Fehn have been reappointed as members of the school board of Evansville, Ind. The appointments are for terms of three years each, beginning with August 1.

—Mr. Fred Baker has been reelected as president of the school board of West Allis, Wis., after a service of several years.

(Concluded on Page 84)



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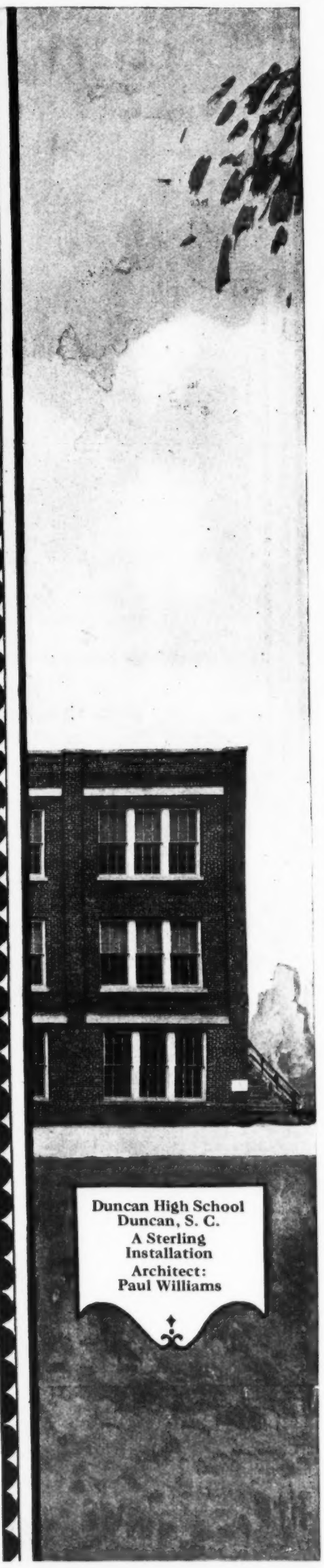
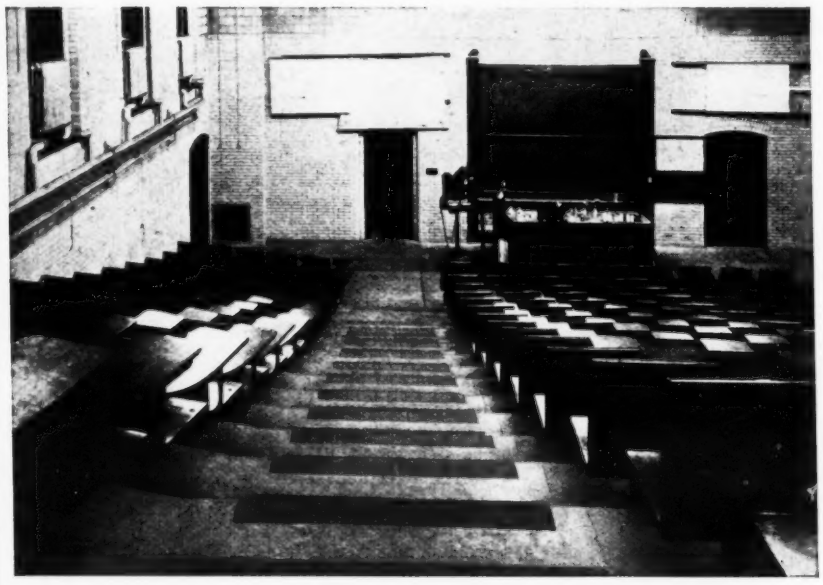


Lecture Hall Steps That Are *Safe*
for Hurrying, Rushing Students



When lectures are over students swarm hurriedly down the aisles, often jostling and pushing good-naturedly. To insure safety the steps must be non-slip—including the very nosing edge. And the safety must be *permanent.* Treads that soon wear slippery do not afford adequate protection and frequent replacements are expensive.

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NORTON FLOORS
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(Concluded from Page 82)

—MISS META BARTH has been appointed to fill the office of child accountant at Saginaw, Mich., to succeed Miss Charlotte Kurtz, who has resigned. The department has under its direction the records of attendance, enrollment, and census figures.

—MR. A. C. HEDIN has been unanimously reelected as president of the school board at Ironwood, Mich. MR. G. N. SLEIGHT and MR. HENRY ROWE were reelected as secretary and treasurer, respectively.

—MR. W. G. MOORE has been reelected as superintendent of school buildings at Oklahoma City, Okla.

—The school board of Janesville, Wis., has reorganized with the election of JOHN W. GROSS, JR., F. A. TAYLOR, and DR. G. STANLEY METCALF as new members. The retiring members of the board were Rex Jacobs, Otto Oestreich, and Jesse Earle.

—MR. JAY STAUFFER has been elected secretary of the school board at East McKeesport, Pa.

—MR. FRANK K. SUTLEY has been elected as director of school purchasing at Tonawanda, N. Y.

—MISS BLANCHE MERRY has been reelected as state school attendance officer of Indiana for a term of four years. Miss Merry was appointed in 1921, when the present state attendance law became effective.

—MISS ANNA B. PRATT is the new board member appointed by the board of judges to the Philadelphia board of education. Miss Pratt succeeds the late Dr. Laura Cornell.

—MR. FRED HAKER has been elected president of the West Allis, Wis., school board for the sixth term.

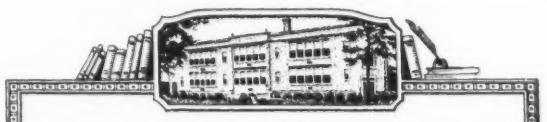
—The Davenport, Iowa, school board proposes to bar married women from appointment to teaching positions.

—FRANK A. GORMAN, youngest member of the Detroit, Mich., board of education has been elected to the presidency.

—COL. STEPHEN A. PARK has been elected president of the Milwaukee board of school directors.

—MRS. H. D. KILGORE has been elected president of the Minneapolis board of education. She is the first woman to hold the office. The action of the board in electing Mrs. Kilgore is considered to foreshadow close cooperation of the board with the new superintendent of schools.

—F. W. KEHOE has been elected president of the Burlington, Vt., board of school commissioners. He succeeds F. E. Kimball who held the office ten years.



Superintendents

MR. CLAXTON RETIRES FROM SCHOOL SERVICE

Mr. P. P. Claxton, for the past six years superintendent of schools at Tulsa, Okla., retired from service at the end of June, following the completion of his second term of three years as head of the Tulsa school system. Mr. Claxton will take a long rest, after which he will devote his time to literary work.

Mr. Claxton, previous to his election at Tulsa, had been commissioner of education at Washington. Shortly after his retirement, he accepted the superintendency at Tulsa. He enjoyed a wide reputation as a schoolman and had served as a member of the Southern Education Board.

Mr. Merle C. Prunty, who has been elected superintendent of schools to succeed Mr. Claxton, was formerly principal of the Central High School. During the period of his administration, he has established some high standards which have made the school widely known for its fine spirit and its high achievements. He is a student of education, an active worker in educational councils and meetings, and is aggressive in promoting the progress and improvement of the school system.

MR. ROSSMAN TO EAST CHICAGO, IND.

Mr. John G. Rossman, for the past six years assistant superintendent of schools at Gary, Ind., has been elected superintendent of schools at East Chicago, to succeed J. W. Asbury. Mr. Rossman entered upon his new duties on August 1.

Mr. Rossman holds degrees from Franklin and Marshall College, and from the Teachers College of Columbia University. For the past six years he has been assistant superintendent of the Gary school system. Prior to coming to Gary, he was in an executive position at Fort Smith, Ark., and had been superintendent of schools at Stuttgart. In his position at Gary, Mr. Rossman had been in charge of much of the actual operation of the school system and of the teaching staff.

Mr. Rossman is a regular instructor on the summer faculties of the western universities, including the University of Montana and Washington State College, and will have charge of a summer course this year at the University of Utah. He is a frequent contributor to the educational journals and is a member of the curriculum committee of the Indiana state education department.

DEATH OF MR. SLAWSON

Mr. Samuel J. Slawson, superintendent of schools of Johnstown, Pa., died at a local hospital on June 29, of a complication of diseases following an illness of six months. Mr. Slawson was 62 years old.

Mr. Slawson was a graduate of the Cortland, N. Y., normal school, Albany Teachers' College, and Teachers College of Columbia University. He had an excellent record covering a period of 38 years in the service of the schools. His first teaching work was in the rural schools of New York state, and later he filled a number of principalships in the same state.

Mr. Slawson's career as a superintendent of schools covered a period of more than a quarter of a century. He served five and one-half years at Olean, N. Y., two and one-quarter years at Stamford, Conn., seven years at Bridgeport, Conn., and in 1922 resigned to go to Johnstown where he had served for the past seven years.

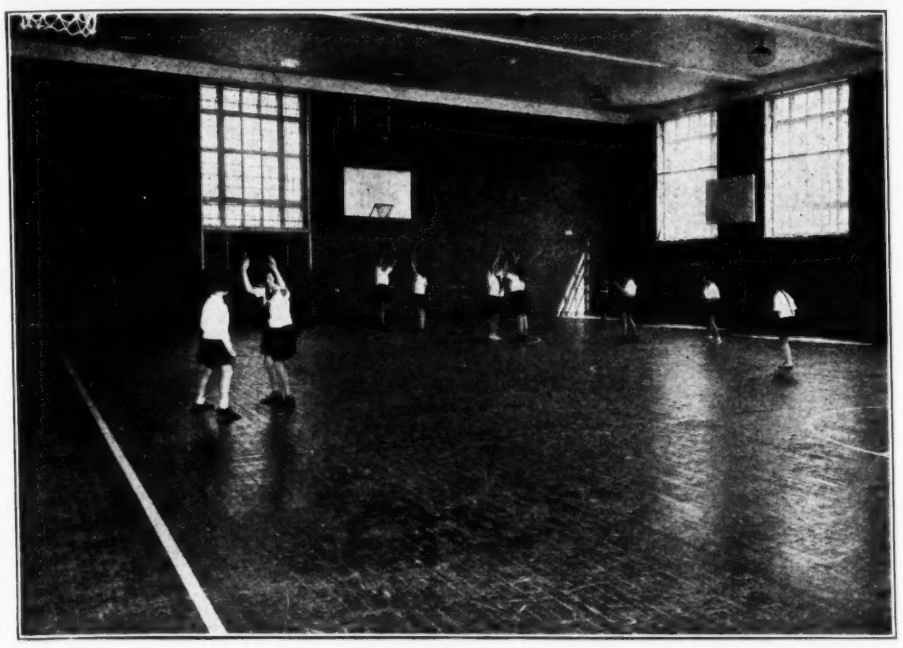
Mr. Slawson is survived by a widow.

MR. McNAMARA ELECTED SUPERINTENDENT AT FITCHBURG

Mr. James M. McNamara, for 20 years a teacher in the Fitchburg, Mass., school system, and for the past four years principal of the B. F. Brown Junior High School, on June 27, was elected superintendent of schools.

At a meeting of the board on June 17, Mr. William C. McGinnis was elected supperintendent. Mr. McGinnis declined election on the grounds that no assurance had been given him of reelection after the four months' term.

Dr. Bruce F. Jeffery, assistant principal of the senior high school, was elected to fill the vacancy caused by the promotion of Mr. McNamara. The action of the board in promoting two faithful educators in the local system to higher positions has won favorable comment from the citizens.



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BLOXONEND meets these demands. Here is a flooring that presents an *end-grain* instead of a *flat* or *edge-grain* wearing surface. The hazard of splinters is eliminated and longevity insured. BLOXONEND is fast, resilient, handsome, safe and stays smooth.

169 prominent school specialists — architects who have builded enviable reputations for designing practical buildings and selecting materials of merit —specify BLOXONEND. This in itself is good evidence that BLOXONEND is a *better flooring.*

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Code of Ethics Adopted—Propaganda Condemned

Adoption of a code of ethics for teachers, a work which has been under discussion for the past five years, was one of the features of the sixty-seventh annual convention of the National Education Association, held at Atlanta, Ga., June 29 to July 4. Other outstanding features were the large attendance from every state in the Union and several foreign lands, estimated at around 12,000 persons; and the presence of an unusual number of government officials and nationally known educators.

Provisions in the teachers' code of ethics, unanimously adopted by the official representative assembly, included these important phrases:

"The schoolroom is not the proper theater for religious, political, or personal propaganda . . . the teacher should not permit his educational work to be used for partisan politics, personal gain, or selfish propaganda of any kind . . . the teacher should not tutor pupils in his classes for pay . . . the teacher should insist upon a salary suitable to his place in society . . . the teacher should not act as agent, or accept a commission, royalty or other reward, for books or supplies in the selection of which he can exercise an influence."

The position of the association against propaganda was made plain on the opening day, when Miss Anna Sutter of the educational and statistical section of the United States Bureau on Prohibition was refused permission to distribute or display in her booth in the exhibit hall, copies of a pamphlet "How Shall We Teach the Eighteenth Amendment." The order forbidding the distribution, however, was issued by Prohibition Commissioner Doran in Washington, and not the officials of the National Education Association, it was announced, but interviews with the latter made it plain that the order met with their approval. Miss Sutter stated that she was in Atlanta to answer such questions from teachers as might be directed to her and those who desire to know what facts are available in the prohibition bureau bearing on the observance and enforcement of the eighteenth amendment.

Miss Ruth Pyrtle, principal of the Bancroft High School of Lincoln, Neb., was elected president, succeeding Uel W. Lamkin, after a considerable contest. Miss Pyrtle received 674 votes, to the 211 cast for Miss Effie McGregor, of Minneapolis.

Columbus, Ohio, was selected as the place for the 1930 convention of the Association.

Willis A. Sutton, superintendent of the Atlanta schools and general chairman of the local committee in charge of the convention, was elected second vice-president, Mr. Lamkin automatically becoming first vice-president. Other vice-presidents elected were:

Miss Florence M. Hale, of Augusta, Me.
E. H. Whitney, of Portland, Oreg.
Miss Jean L. Soules, of Spokane, Wash.
S. L. Ragsdale, of Memphis, Tenn.
Miss Elizabeth McCormick, of Superior, Wis.
W. A. James, of Houston, Tex.
W. H. Holmes, of Mount Vernon, N. Y.
John E. Bryan, of Alabama.
W. M. Bond, state superintendent of public instruction, of Jackson, Miss.

Miss Pyrtle, the new president, has had a remarkable career. She took out a homestead on the Rosebud Indian Reservation years ago, farmed her own land, and earned the money to pay her way to educational conventions, in which she has taken a prominent part. Immediately after the Atlanta convention she sailed for Europe to attend the Geneva conventions of the World Federation of Education Associations and the American Association of University Women.

Analysis of the relationship of education to agriculture was stressed in an address by Arthur M. Hyde, United States Secretary of Agriculture, in an address on the last day of the convention. Mr. Hyde declared that the one general answer to the farm problem lies in organization among the farmers, which education must vitalize. Agriculture must bring about control of markets, standardization of output, and elimination of waste in distribution. He did not share the fears of those who "believe that agriculture is doomed and the farmers about to be reduced to a state of peonage."

Dr. Martha Castellani, national president of the Italian Federation of Business and Professional Women's Clubs, declared in an address that the Fascist policy of education in Italy "has acted like a beneficent earthquake, owing to the personal interest taken by Mussolini and the vigor with which he has pressed his program among his people."

Dr. Augustus O. Thomas, of Augusta, Me., president of the World Federation of Education Associations, declared that the page written by women in the past generation, since college doors were opened to the so-called "weaker sex," has been the most brilliant in history.

"Education must precede law if law is to be made effective," he said. "In order to make international treaties effective, there must be progress in international education in the principles of justice.

"Education today is the biggest single concern of the people of this country. More people give full time to education as an enterprise than to any other business, profession, or occupation. Education takes one and one-half per cent of the private and public income, while crime costs eight and three-fourths per cent."

Dean William F. Russell, of Teachers' College, Columbia University, declared that the United States finds itself in danger of a bureaucracy shaping the education of its children, if it yields to the pressure being made to bring about federal control of schools. He cited the state control of schools in Prussia before the war and in Russia and Italy today as undemocratic and liberty destroying.

J. C. Wright, of Washington, D. C., director of the Federal Board for Vocational Education, declared that the school of hard work is too often unrecognized as a means of obtaining a considerable part of an education, and that experience often counts more in the life of an individual than a mere study about things.

UEL W. LAMKIN
Retiring President of the National Education Association, Jefferson, Mo.

MISS RUTH PYRTLE
President-Elect, National Education Association, Lincoln, Nebr.

President Uel W. Lamkin, in his address, made the charge that in most state legislatures there are organized movements afoot to curtail public education. He declared that the attitude of lawmakers generally indicates a backward swing which, if continued, will ultimately lead to deplorable conditions.

Miss Jeanette Rankin, of Montana, former Congresswoman, declared that there are encouraging indications that the world is alive to the need of concentrating its attention on world peace. "The highest human loyalty to man is not to the state but to society—to humanity," she said.

Work of the committee on international relations was reported by Dean William F. Russell of Columbia University. It approved a resolution to invite the World Federation of Education Associations to come to this country in 1933, when the Chicago exposition will be in progress. In concluding his report, he declared that the United States is in danger of losing leadership in educational methods because of "tardy realization of the imperative necessities of adaptation which the changing modern world has created. Other nations are forging ahead of the United States in many phases of educational method."

Robert W. Moton, successor of Booker T. Washington as head of the Tuskegee Normal and Industrial Institute for Negroes, in Alabama, addressed the convention by invitation. He declared he is opposed to intermarriage between the races and intersocial relationships. He believes that the two races should live side by side in prosperity without intermingling. He believes that "the Negro's contribution to the industrial and economic welfare of the country entitles him to recognition as a citizen on the same basis as that of white people."

Dr. Edwin Mims, of Vanderbilt University, Nashville, Tenn., in an address, pictured the South as "hesitating to climb aboard the bandwagon of modernism." He said the southerners are holding back for the good of themselves and the good of the nation.

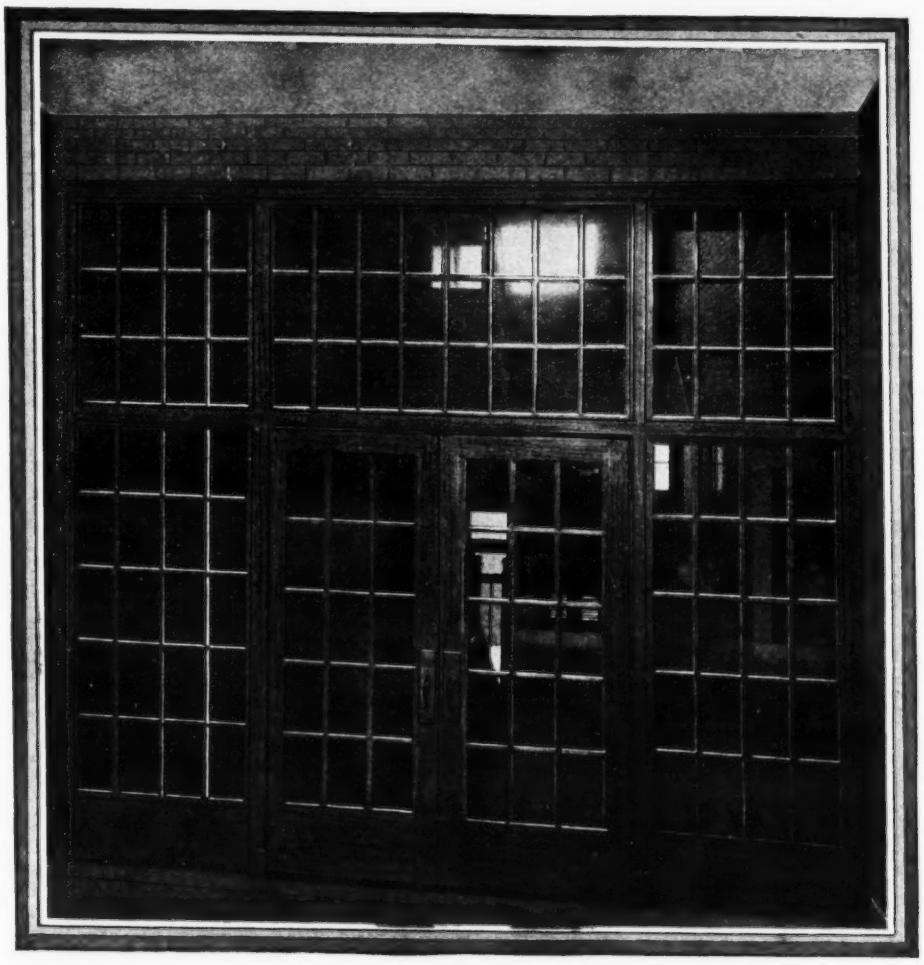
"More personable teachers are needed; pupils deserve instructors of whom they may be proud," declared A. C. Eldridge, of Cleveland, Ohio; "Too many of the unfit turn to teaching, probably because the bars are not so high as in other fields of endeavor where one must win his clientele through personality and ability."

Addresses were delivered by William John Cooper, United States Commissioner of Education, and Josephus Daniels, North Carolina editor and former secretary of the navy.

The report of the committee on propaganda attracted a great deal of attention in view of the national discussion of the increasing in-

(Concluded on Page 89)

SMOKE SCREENS by DAHLSTROM



SMOKE SCREENS BY DAHLSTROM . . . embody all the experience gained through a quarter of a century in dealing with fire control through hollow metal construction. Placed at stair wells, in corridors and other danger points, Dahlstrom Smoke Screens control smoke and flame by preventing drafts, thus confining the smoke and flame to its point of origin and preventing its spread. Their rugged construction . . . made possible by the best materials and finest workmanship . . . give length of life and wear resistance especially suited to the strenuous strain of school use.

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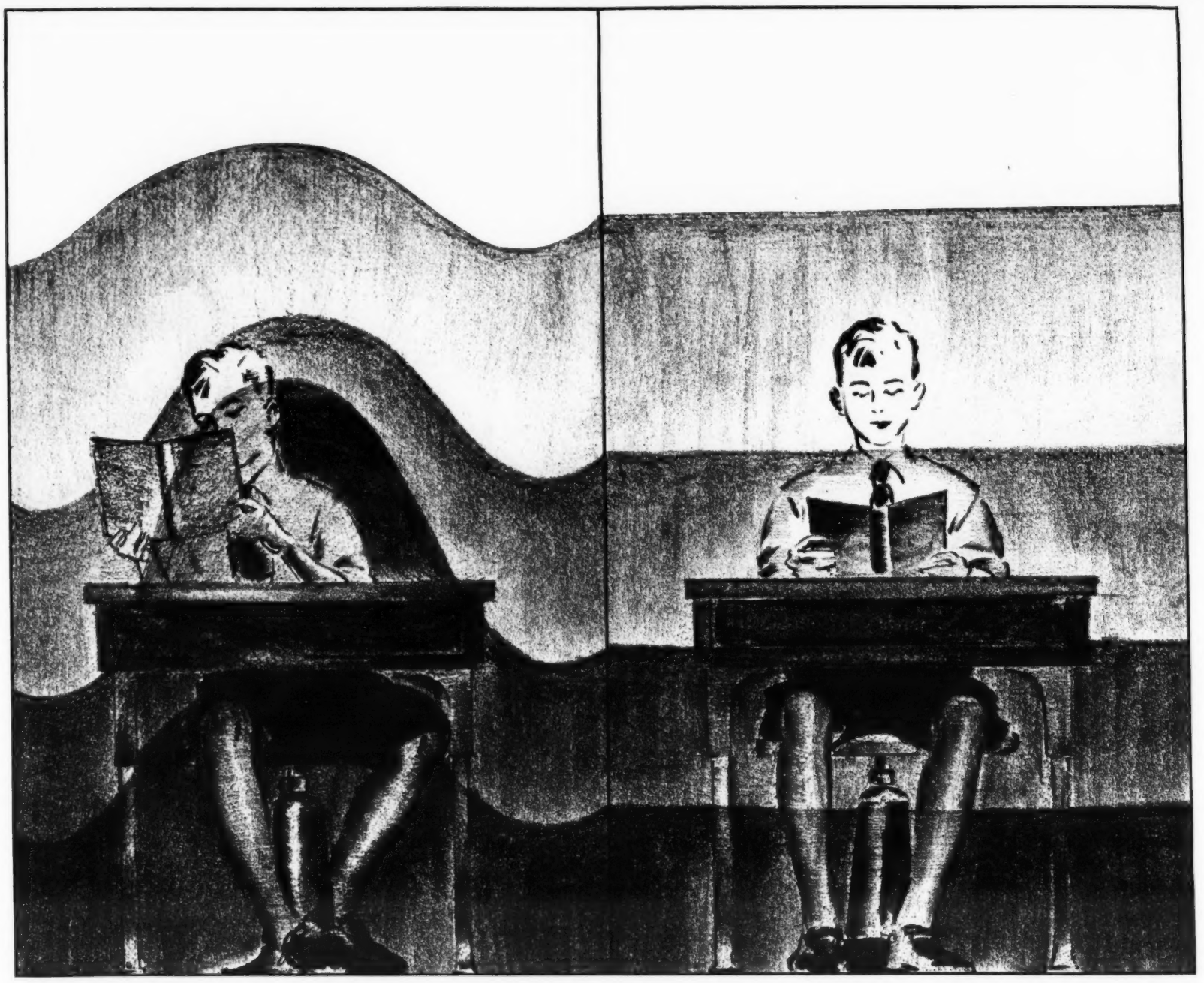

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Vertical Light *vs.*	Direct Glare
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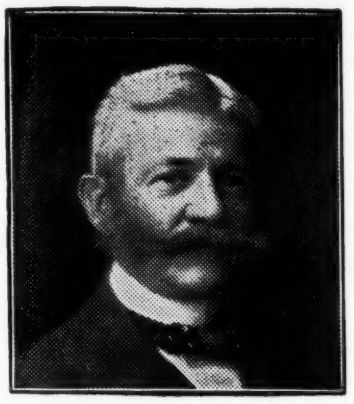

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Miles C. Holden, President Springfield, Massachusetts

(Concluded from Page 86)

sidious effort to influence the public through newspapers and textbooks.

Uncritical acceptance of propaganda and a general opening of the schools to the activities of outside agencies would do the children incalculable harm, would destroy confidence in the public school, and ultimately threaten its existence, declared the propaganda committee's report. "On the other hand, statesmanlike study of this phase of our civilization, and intelligent and fearless discrimination in selecting from the propaganda movement certain elements to aid in achieving well-considered educational objectives will benefit the school."

Ramifications of the great game of "putting it over" are sufficiently apparent, the report stated. "One estimate places the yearly expenditures for newspaper advertising alone at close to a billion dollars. The most ingenious methods are devised to secure publicity. The publicity agent has become the 'public relations counsel' and volumes are written on the techniques of his calling."

Of more than ordinary interest was the foreign attendance, which included a delegation from Hawaii, in charge of Mrs. Edna Lawson, teacher of dramatics in the Territorial Normal School at Honolulu. The visitors gave a pageant at one of the hotels depicting native costumes and dances. The delegation brought 1,500 "leis" or floral wreaths to be distributed among the guests.

Latin-American educators held a meeting of the Inter-American Conference on Education in Atlanta during the N. E. A. convention, among those in attendance being: Luis Churion, first secretary of the Venezuelan legation; Margareta Lloreda, director of the J. Mariano Gonzalez National School of Guatemala City; Catalina Fernandez des los Rios, kindergarten inspector-general and president of the National Association of Kindergartens; Mardoqueo Garcia, secretary of the national council of education of the Republic of Guatemala; J. M. Menocal y Baneras, taxation professor of the Superior School of Commerce, Havana, and Jose Flores, of Santiago, Chile; Dr. Glen Levin Swiggett, organizing secretary of the Inter-American Federation of Education Associations; Ramiro Guerra y Sanchez, professor at the University of Havana; Gustavo A. Diaz, president of the senate of the Dominican Republic; Max Henriquez Urens, professor at the Teachers College of Santiago; Arturo Echemendia, principal of the Mantanzas, Cuba, High School, and H. L. Smith, dean of the Indiana University School of Education.

The Latin-Americans decided to hold their next meeting in Havana, Cuba, and chose Dr. Glen I. Swiggett, of Washington, D. C., as temporary chairman of arrangements.

The Atlanta convention was one of the most successful in the history of the Association according to the opinion generally expressed. While the delegates and visitors were extremely busy, there still was time to accept the hospitality of Georgia, which took the form of numerous receptions, dinners, and motor drives. Stone Mountain, where the most colossal monument in the world, a memorial to Confederate heroes, is being carved on the face of the cliff, attracted the visitors.

The teachers of Atlanta and Georgia spared no effort in preparing for the comfort and happiness of the visitors. A great barbecue was served to more than 5,000 persons on the opening day. Thousands of motor cars were at the service of the visitors for trips about the city, and information booths were in service at many points. Almost every teacher in the Atlanta schools had a definite task assigned in looking after the city's guests.

NOTES

That teachers are interested in golf was indicated by the vociferous applause given when "Bobby" Jones, of Atlanta, who had just won the national open championship for the third time, was introduced to the convention.

Miss Eula Hunter, of Fort Worth, Tex., was elected president of the classroom teachers' department, with James P. Barron, of Atlanta, vice-president.

David A. Ward, of Chester, Pa., was elected president of the School Garden Association. A committee will be named to seek closer cooperation with the American Nature Study Association.

An official hostess, selected from among Atlanta teachers, was appointed to look after the delegations from each state, and all of them won high praise from their guests.

Paul Wilstach, authority on the history of Tidewater Virginia and a frequent contributor to magazines, addressed the convention on the increasing interest being manifested in early and colonial American history.

Many teachers took their first airplane ride while in Atlanta. Among them was Mrs. Elizabeth Slade, 60-year-old teacher from Oskaloosa, Kansas.

Some of the "old-timers" recalled that the twentieth convention of the N.E.A. was held in Atlanta in 1881, when Dr. Gustavus J. Orr was president of the association. Dr. Orr, whose descendants also are educators, was considered the "father of education in Georgia" as he fought for a state school law in 1869, succeeded in carrying it to success, and served as Georgia's first state school commissioner.

Los Angeles has extended an invitation for the 1931 convention and Chicago wants it for 1933, during the big world exposition of that year.

—Mr. W. C. Lutz of Pomeroy, Ohio, has been elected superintendent of schools at Gallipolis.

—Mr. F. L. Todd of Beaver Dam, Wis., has been elected superintendent of schools at Harrod.

—Mr. W. C. Rabe of Dodge Center, Minn., has been elected superintendent of schools at Milbank, S. Dak.

—Mr. James F. Witter has been elected president of the Rock Island, Ill., school board for the fifth time.

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PERSONAL NEWS OF SUPERINTENDENTS

—Mr. Paul Estep of Columbus, Ohio, has been elected superintendent of schools at DeGraff.

—Mr. T. H. Cobb of Mt. Carmel, Ill., has been elected superintendent of schools at Urbana, to succeed M. L. Flaningham.

—Supt. R. L. Erwin of Steubenville, Ohio, has been reelected for a new term of three years.

—Mr. Herbert G. Means of North Braddock, Pa., has been elected superintendent of schools at East Liverpool, to succeed C. S. McVay, who has accepted the principalship at Brilliant.

—Supt. W. R. Wykle of Lucasville, Ohio, has been reelected for the coming year.

—Mr. William Forshey has been elected superintendent of schools at Summerfield, Ohio, to succeed R. R. Robinson.

—Mr. Garr Hodson of Marion, Ind., has been elected superintendent of schools at Amboy.

—Mr. H. L. Ford of Shiloh, Ohio, has been elected superintendent of schools at Mt. Gilead.

—Supt. Neal Crafts has been reelected at Pemberville, Ohio, for the coming year.

—Mr. Hugh Hammitt has been elected superintendent of schools at Westville, Ind.

—Mr. C. O. Callahan of Woodstock, Ohio, has been elected superintendent of schools at Green Springs.

—Supt. John Ranger of Hartford, Mich., has been reelected for another term of three years.

—Supt. J. M. Turner of St. Paris, Ohio, has been reelected for another term.

—Mr. B. F. Shafer of Jacksonville, Ill., has been elected superintendent of schools at Freeport, to succeed F. W. Phillips.

—Mr. V. W. Downing of Saranac, Mich., has accepted a position at Kalamazoo. Mr. Downing will teach while he continues his graduate work at the State Teachers' College.

—Mr. Harvey D. Teal of Stark county, Ohio, has been elected superintendent of schools at Clairton, Pa.

—Mrs. Bessie J. Crawford of Jackson county, Mich., has been elected superintendent of schools at Vandercook Lake. Mrs. Crawford succeeds F. C. Wilbur.

—Mr. A. P. Gossard has been elected superintendent of schools at Coal City, Ill.

—Mr. Leonard Power, formerly a district superintendent at Dallas, Tex., has been elected assistant superintendent in charge of 41 elementary schools, of Tulsa, Okla. Mr. H. W. Gowans, a former schoolman of Kansas, has been elected as director of personnel in the Tulsa schools.

—Mr. Emil Estenson has been elected superintendent of schools at Buhl, Minn.

—Supt. David C. Ellis of Tonasket, Wash., has been reelected for the next school year.

—Mr. Clarence Chamberlain of La Habra, Calif., has been elected superintendent of schools at Elsinore.

—Mr. Clarence H. Woodruff, formerly vice-principal of the Wilson High School at Long Beach, Calif., has been elected dean of the Junior College of Long Beach.

—Mr. E. A. Stansbury of Boulder, Colo., has been elected superintendent of schools at Cotopaxi.

—Mrs. Minnie D. Bean, formerly assistant superintendent of schools at Tacoma, Wash., has accepted a position with the state education department at Olympia.

—Mr. Jerome P. Fogwell of Fall River, Mass., has been elected superintendent of schools at Hyannis, to succeed C. E. Wheeler.

—Mr. C. S. Brown has been elected superintendent of schools at Ajo, Ariz.

—Mr. John A. Miller has been appointed assistant county superintendent of schools in Prince Georges county, Md. Mr. Miller will have charge of the supervision of high schools of the county and the physical property of the schools. The increase in high-school enrollment and a consequent increase in the volume of business handled has been responsible for the creation of the new office.

—Mr. D. B. Heller of Vermilion, S. Dak., has been elected superintendent of schools at Evelth, Minn., for the next year. Mr. Heller, who succeeds J. V. Voorhees, had completed seven years of service at Vermilion.

—Mr. G. E. Denman of Park Falls, Wis., has been elected superintendent of schools at Edgerton, to succeed F. J. Holt, who resigned last May.

—Mr. Charles E. McCorkle of Kenmore, Ohio, has been elected superintendent of schools at Morgantown, W. Va. Mr. McCorkle is a graduate of Ohio and Clark Universities. He had served as city superintendent at Kenmore for the past ten years, and previous to going to Kenmore had completed a three-year term at Ironton.

—Mr. Paul M. Marshall, formerly superintendent of schools at Eldon, Mo., has been elected principal of the Janett Junior High School at Springfield.

—Mr. D. C. Rucker, of Tipton, Mo., has been elected superintendent of schools at Eldon, to succeed Mr. P. M. Marshall.

—Supt. D. O. Groce of Desloge, Mo., has been reelected for another year.

—Supt. Charles Scott of Chaffee, Mo., has been reelected for a fifth consecutive term. Mr. Scott has the distinction of retaining the superintendency the longest of any incumbent.

—Mr. Harry E. Greene of Antonito, Colo., has been elected superintendent of schools at Keota.

—Mr. E. C. Kincaid of Dallas, Iowa, has been elected superintendent of schools at Malvern.

—Mr. J. J. Vineyard, formerly principal of the high school at Paoli, Kans., has accepted the principalship of the junior-senior high school at Junction City.

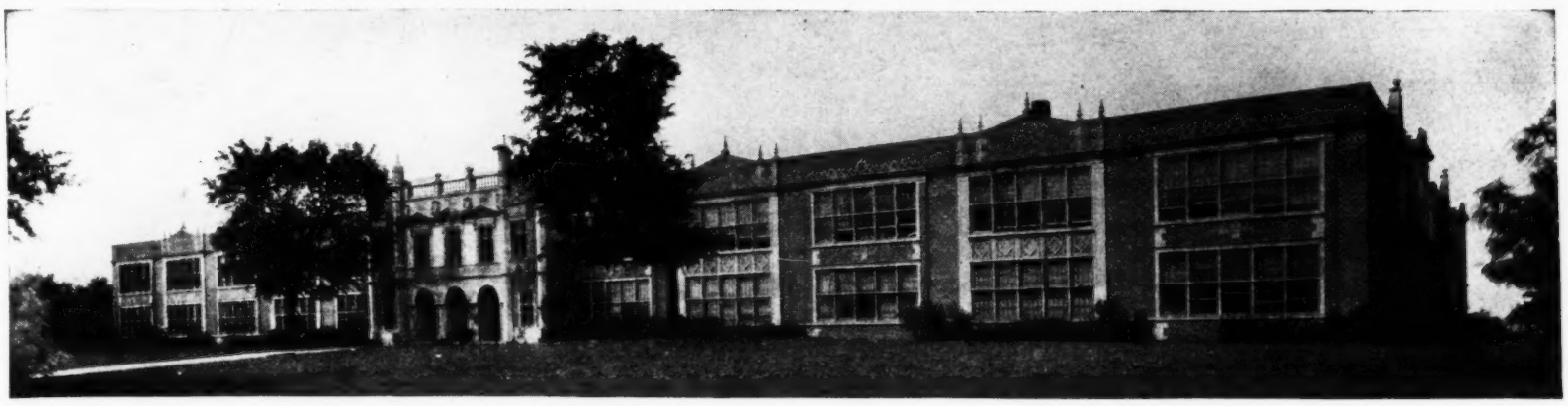
—Supt. J. G. Collicott of Columbus, Ohio, has been reelected for a new five-year term, at an increase in salary.

—Mr. F. T. Glidden, formerly assistant superintendent of schools at Indianapolis, Ind., has been elected superintendent of schools of Marion county.

—Dr. L. C. Stephens, director of the training school at Western Kentucky State Teachers' College, died at a hospital in Bowling Green on June 1, following an attack of typhoid fever. Dr. Stephens was formerly assistant superintendent of schools at Louisville and had served as a school administrator.

—Mr. J. R. Johnson of Waterloo, Nebr., has been elected superintendent of schools at Wood River.

—Mr. Robert H. Graham, deputy state superintendent of public instruction of Nebraska, died suddenly of a heart attack on June 10. Mr. Graham was appointed deputy by State Superintendent Taylor in 1926. Prior to accepting the position in the state department, he was superintendent of schools at Auburn for three years, and held the same position in a number of cities in South Dakota. He was well known in educational circles, was active in state institute work, and was a frequent contributor to the educational periodicals.



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says A. W. Merrill, *Ass't Supt.*
Public Schools, Des Moines, Iowa

"We have recently built two senior high schools, five junior high schools and some twenty additions to elementary schools. In these buildings we have tried several kinds of flooring materials but have gradually come around to the opinion that, considering expense, durability, comfort and maintenance, there is no flooring more satisfactory for use in the classroom than hard Maple.

"In nearly all of our newer buildings, therefore, our classroom and gymnasium floors are Maple. I am inclined to think that, except in certain peculiar situations, floors installed in the future in this school system will be hard Maple."

Experience with a variety of flooring materials, as A. W. Merrill explains, has showed the school board of Des Moines, Iowa, that hard Maple is the flooring most ideally suited to meet the demands of schoolroom use.

Back of the widespread use of Northern Hard Maple in school buildings is the fact that here is one flooring material which combines warm, dry, cushioning comfort with the qualities of lasting wear which school use requires.

This resilient flooring material is remarkably tough-fibred and tight-grained. It will not sliver or splinter. Scuffing, youthful feet and the moving of equipment simply make it smoother with time. Northern Hard Maple, moreover, because of its permanent smoothness, is exceptionally easy to clean and keep clean. It offers no open lodging places for dust and germ-laden dirt to collect. And it permits quick, simple, permanent anchorage for seats, or re-arrangement of seats any time.

Hundreds of school boards have been guided by these facts in selecting flooring. They have chosen hard Maple for schoolrooms, corridors, gymnasiums, assembly halls. Consult your architect about Northern Hard Maple.

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North Branch Flooring Co.	Chicago, Ill.
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Oval Wood Dish Corporation	Tupper Lake, N. Y.
Robbins Flooring Company	Rhinelander, Wis.
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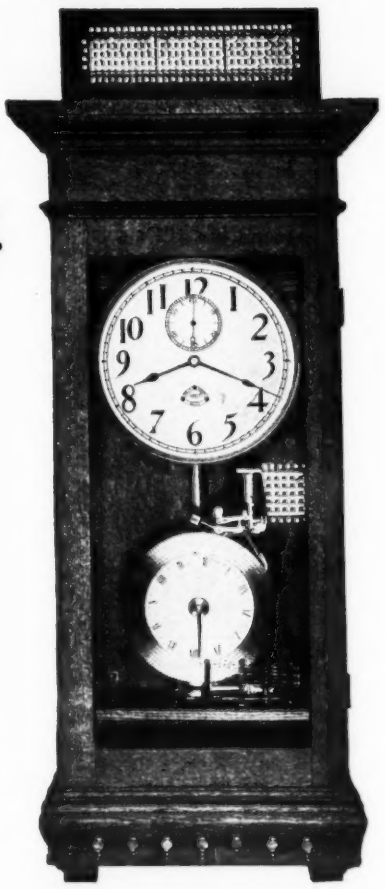

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School-Building Plans in the District of Columbia

Municipal Architect A. L. Harris, has completed preliminary plans for several school buildings to be erected in the District of Columbia for the public-school system. The largest of these is the Roosevelt High School, which will replace the present Business High School, but on a different location. The present building has been found entirely too small and not properly situated for the population it serves.

The Roosevelt High School, which will be located on a site already owned by the District, will provide ample space for the building and for an athletic field.

The building, which will cost $1,500,000, not including the site, will be of colonial design. It will be equipped for all regular high-school work, as well as for business courses, and will serve as a general high school for the patrons of the particular section of the city.

Plans for two additional junior high schools have been prepared, to cost $600,000 each. Both will be similar to the junior high schools already constructed and in use. The Park View School will have two additions to the present building to make it suitable for the "platoon" organization under which it is operating. The addition will house a library, a science laboratory, and gymnasiums for boys and girls. Two further elementary schools will be enlarged by the addition of combination gymnasium-auditoriums.

Policy Regarding Portable Schools in the District of Columbia

A definite step toward the formation of a new policy for the maintenance and operation of portable school buildings in the District of Columbia has been undertaken by the school officials with a request by the board of education for a complete inspection of the portables now in use. The findings of Municipal Architect Harris's office concerning the condition of these structures will form the basis of the board's future policy concerning these structures.

In requesting the inspection of the 75 structures in the city, Mr. Harry O. Hine, secretary of the board of education, forwarded to the municipal architect, a report of Dr. Frank W. Ballou, superintendent of schools, in which he asked the board whether it was that body's desire that portables no longer required in one community be transferred to another neighborhood for continued service, or whether the new congestions in school population should be housed in part-time classes.

In the report Dr. Ballou pointed out that the board and the school officials have made efforts to secure sufficient appropriations for permanent schoolhouses to make it possible to abandon the use of portables. Declaring his belief that neither he nor the board are responsible for the delay in securing necessary appropriations the superintendent continued:

"Had the five-year school-building program act been carried out, most, if not all, of our portable schoolhouses might have been abandoned by the end of the coming fiscal year. The fact that the five-year building program has not been carried out makes necessary the continued use of portables, and also the continued use of rented quarters and continuous part-time classes in elementary schools."

During the current summer it is expected that the completion of new buildings will release a few of the portables which have been used in certain sections during the past several years. The abandonment of these at their present location, however, does not mean their complete withdrawal from the school system, if the current policy of the school officials remains in force.

Protest Against Longer School Day

The board of education of Washington, D. C., has received an emphatic protest against its recent action in lengthening by a half hour the school day in the high schools of the District. The protest comes from the teachers' union of Washington, which is affiliated with the American Federation of Labor, and which claims a membership of one half the entire teaching staff of the district.

The reasons behind the protest are five in number, as follows:

"The Washington high schools rank high in college preparatory, business, and technical accomplishments. Since this standard has been reached with the day of the present length, we protest against this action as being unnecessary.

"Since the value of sunshine to the growing child cannot be overestimated, we protest this action which would deprive the children of a period of sunshine.

"The school day was lengthened without consulting those most concerned, the parents and the teachers, therefore we protest this action as being undemocratic.

"The working day of the teacher has been lengthened without additional compensation for the teacher, therefore we protest this action as being unfair."

Resolutions of the National Education Association at Atlanta Meeting

At the recent annual meeting of the National Education Association held in Atlanta, Ga., the resolutions adopted included a renewal of its belief in the need of a Federal Department of Education with a secretary in the President's Cabinet.

The resolutions urge improved facilities for edution of teachers and such inducements to enter the teaching professions as will attract men and women of the highest character and ability; also, that equal salaries for all teachers, both men and women, of equivalent training and experience be paid.

Research in many fields to determine the needs and trends of education were recommended, including the best sources of additional financial support, the growth and development of early childhood before school age, rural education, teacher training, illiteracy, and adult education.

Other recommendations were:

Increase in requirements for beginning teachers.

Legislation for a "fair and just" retirement of teachers.

Encouragement for teachers to travel in foreign lands and observance of May 18 as international good-will day.

Teacher participation in school development.

The report included this expression of aims:

"The American conception of education is founded on this fundamental principle: Equal opportunity for every child regardless of residence, ability, handicap, or disability; a high school education within the reach of every boy and girl; well trained and adequately paid teachers for all schools; larger units of school administration; equalization of educational opportunity."

Propaganda and the School System

Renewed interest in recent prominent attempts to use the public schools for propaganda purposes has developed because of announcements and denials

(Concluded on Page 94)

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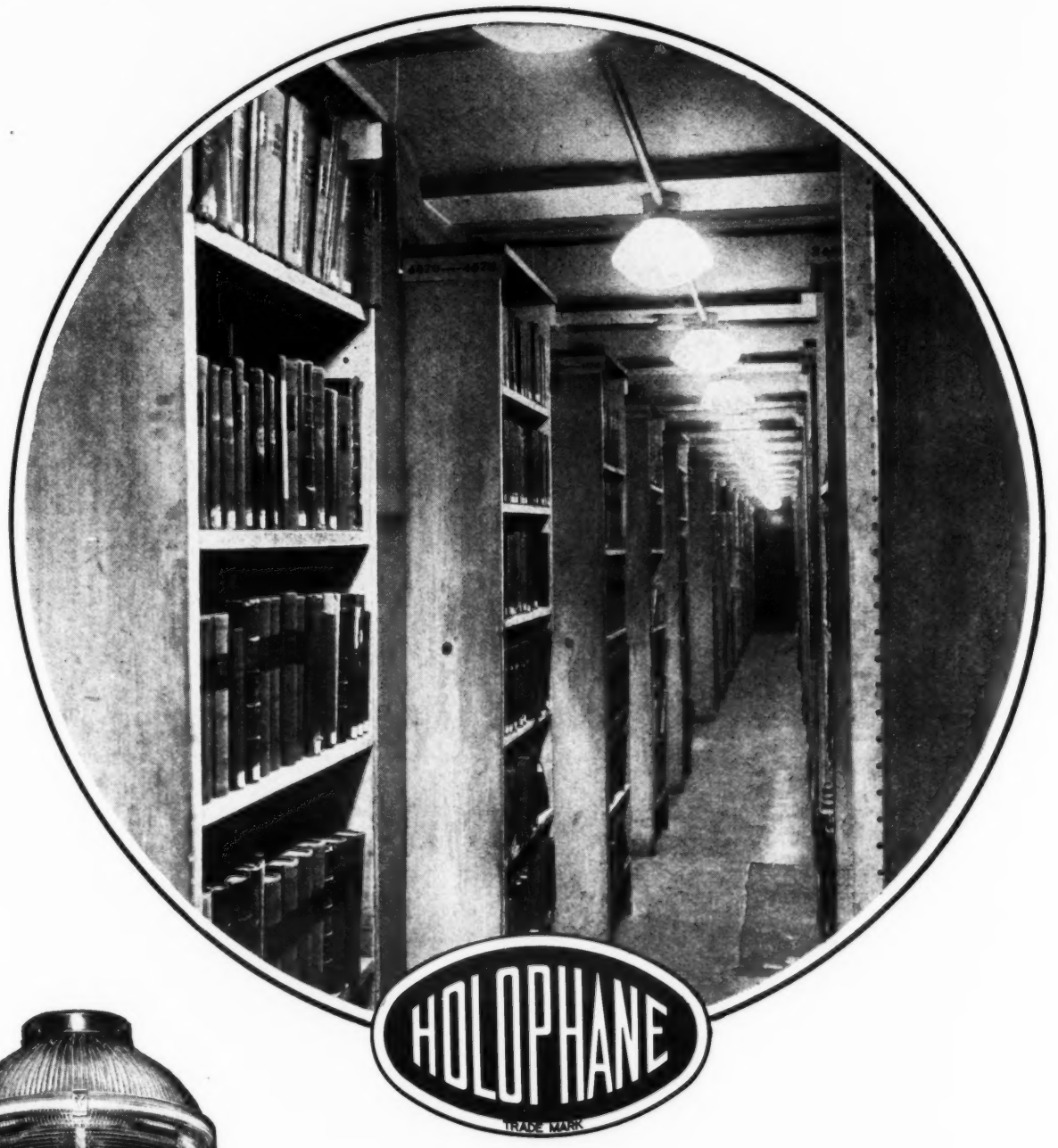

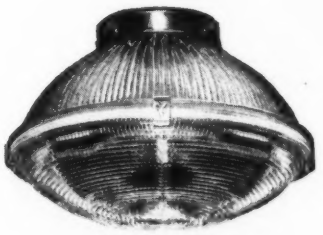

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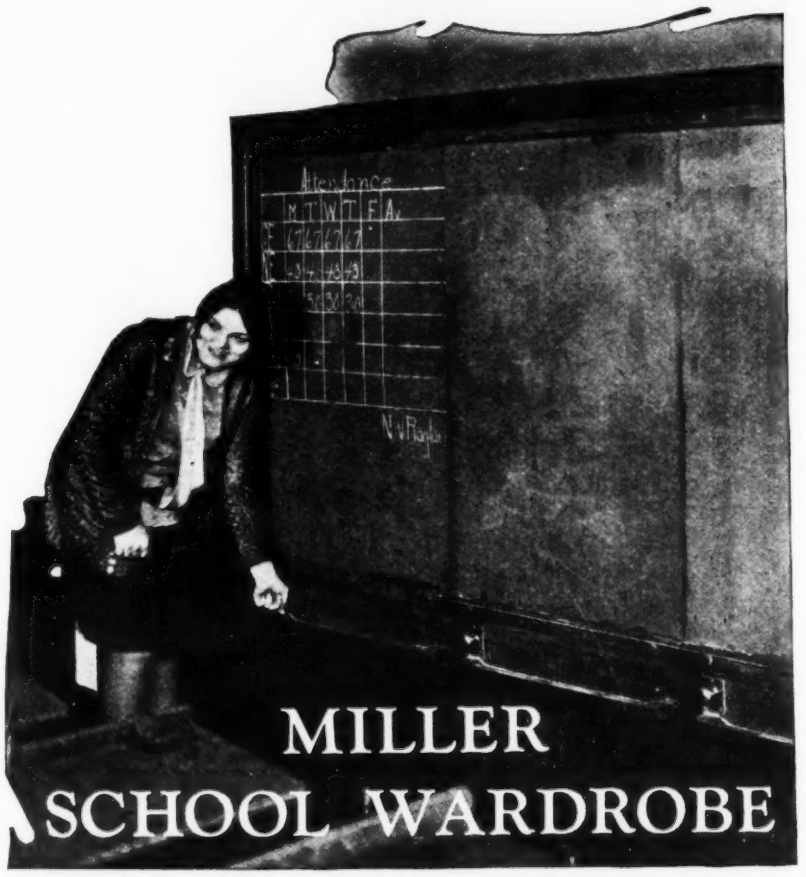

It's So Easy to Steal!

Unless the School has Miller Wardrobes

Recess time . . . little Johnny or Mary alone in the school room because of sickness . . . the other children's wraps hanging on hooks in an old-style cloak room or locker room. Only a step . . . and out of curiosity alone, little Johnny or Mary is investigating the pockets of school-mates' coats.

Candy, marbles, beads and the other odds-and-ends so adored by childhood! It's so easy for little Johnny to slip some choice trifle into his pockets. It's so easy to steal! And no one can foretell the consequences of the act.

Why place temptation in little Johnny's way? In up-to-date school rooms, equipped with the Miller School Wardrobe, petty pilfering is impossible.

ONE KEY and ONE LOCK on the Master Door of a Miller Wardrobe locks or unlocks all the doors at once. The teacher holds the key—has "single control" of the Master Door's "single control". Adequate storage room is provided, the wall space on the outside is utilized by genuine Bangor slate blackboards —*and there's no opportunity for stealing.*

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(Concluded from Page 92)

that the prohibition bureau of the United States Treasury had prepared circulars for distribution in the schools.

There is no question but that the circular had been prepared and printed. The pamphlet which is entitled, "How Shall We Teach the Eighteenth Amendment," was prepared by the division of education and statistics of the bureau of prohibition. It outlines a complete prohibition course of study. It contains a page of slogans such as "It takes two to make a bootlegger," "Prohibition is a success, ask the banker, the Salvation Army, the social worker, the mother." The question in dispute is the use to which it was to be put. Early press statements said it was to be the basis of a movement to spread dry propaganda throughout the national school system. As the storm of protest arose against the use of the schools for any propaganda, the director of the prohibition bureau, in withdrawing the pamphlet from distribution stated that it was prepared and printed for the benefit of teachers wanting such information and requesting copies.

At the meeting of the National Education Association in Atlanta, and at the meeting of the American Federation of Teachers held at the same time in Chicago, resolutions were adopted condemning the use of the schools for any type of propaganda. The resolutions from both of these meetings had been prepared before the news broke of the prohibition bureau plan and were the results of the propaganda distributed through the schools during the past year by public utilities against public ownership of utilities. However, added interest was evident at both meetings because of the prohibition bureau pamphlet.

The American Federation of Teachers in its resolution condemned the power trust and its efforts to poison the mind of America toward the public ownership of utilities, especially water power. Employment of teachers by power trusts was called a betrayal of the teaching profession.

The National Education Association in its resolution says: "The schoolroom is not the proper theater for religious, political, or personal propaganda. The teacher should not permit his educational work to be used for partisan politics, personal gain, or selfish propaganda of any kind."

Federal Rehabilitation Act Applies to the District of Columbia

The Federal Rehabilitation Act passed by Congress soon after the war for the benefit of men and women injured in the industries has at last by Congressional action been made applicable to those so injured in the District. Under this act the U. S. Government pays to any state, through the Federal Board for Vocational Education, a sum of money, the maximum fixed by law, to be used by the state in the rehabilitation and reeducation of persons injured in industries, provided the state expends at least an equal amount for the same purpose. Not all but nearly all of the states are receiving this money and are carrying out the work for which it is given. In the past the District of Columbia was not eligible to receive it as it was not specifically mentioned in the law, and Congress had not appropriated the money to balance the funds in the rehabilitation act. The direction of the work and the supervision of the expenditures will be under the board of education.

DR. GRIFFIN TO LITCHFIELD

—Dr. Orwin Bradford Griffin of Waterbury, Conn., has been elected superintendent of schools at Litchfield, to succeed Mr. Stewart Esten. Dr. Griffin holds degrees from Columbia and Boston Universities, and has completed postgraduate work at Yale, Columbia, and Boston Universities. Prof. Griffin has been submaster and head of the English department at the Wilby High School, Waterbury, and during the summer of 1928 was a visiting professor at George Washington University.

PERSONAL NEWS OF SUPERINTENDENTS

—Mr. T. H. Pease of Clinton, Ill., has been elected superintendent of schools at Summit.

—Mr. Ury McKenzie of Arkansas College has been elected superintendent of schools at Batesville, Ark., to succeed Sidney Pickens, who has resigned.

—Mr. H. S. Ford of Shiloh, Ohio, has been elected superintendent of schools at Mt. Gilead.

—Mr. G. A. Gamble of Carrington, N. Dak., has been elected superintendent of schools at Lisbon.

—Mr. D. A. McConnell has been elected super-superintendent of schools at Halstead, Kans.

—Mr. S. B. Sivells of Copan, Okla., has been elected superintendent of schools at Marietta. Mr. Sivells succeeds E. L. Smith, who goes to Heaidton.

—Mr. Leonard Power of Dallas, Tex., has been elected director of elementary education at Tulsa, Okla. Mr. Ward H. Green of the Tulsa High School, has been elected director of English for the entire school system.

—Mr. W. C. Roberts of Shawnee, Ohio, has been elected principal of the high school at Middleport.

—Mr. O. C. Sutherland of Webster City, Iowa, has been elected superintendent of schools at Bellevue.

—Supt. E. C. Hartwell of Buffalo, N. Y., has been unanimously reelected for another six-year term, at an annual salary of $15,000 per year.

—Mr. J. H. Spragins of Morrilton, Ark., has been elected superintendent of schools of Dallas county.

—Mr. Kenneth O. Manthey of Columbus has been elected assistant superintendent of schools at Marysville, Ohio.

—Mr. Irl Roper of Albion, Idaho, has been elected superintendent of schools at Roberts. Mr. J. H. Symonds of Laclede succeeds Mr. Roper at Albion.

—Mr. Roy E. Miller of Wrenshall, Minn., has been elected superintendent of schools at Okebena.

—Mr. G. T. Stubbs has been elected superintendent of schools at Durant, Okla.

—Supt. T. R. Hersh of Sylvania, Ohio, has been reelected for another year.

—Mr. D. G. Greenley, of Green Springs, Ohio, has been elected superintendent of the Dola schools, the largest centralized schools in Hardin county. Mr. Greenley succeeds S. F. Jamison.

—Mr. O. C. Sutherland of Webster City, Iowa, has been elected superintendent of schools at Bellevue, Iowa. Mr. Sutherland succeeds R. H. Beall.

—Mr. W. S. Fraser of Niagara Falls, N. Y., has been elected superintendent of schools at Tonawanda, succeeding F. K. Sutley.

—Mr. Charles Lewis of Westwood, N. J., has been elected superintendent of schools at Frankfort, to succeed I. M. Stanton.

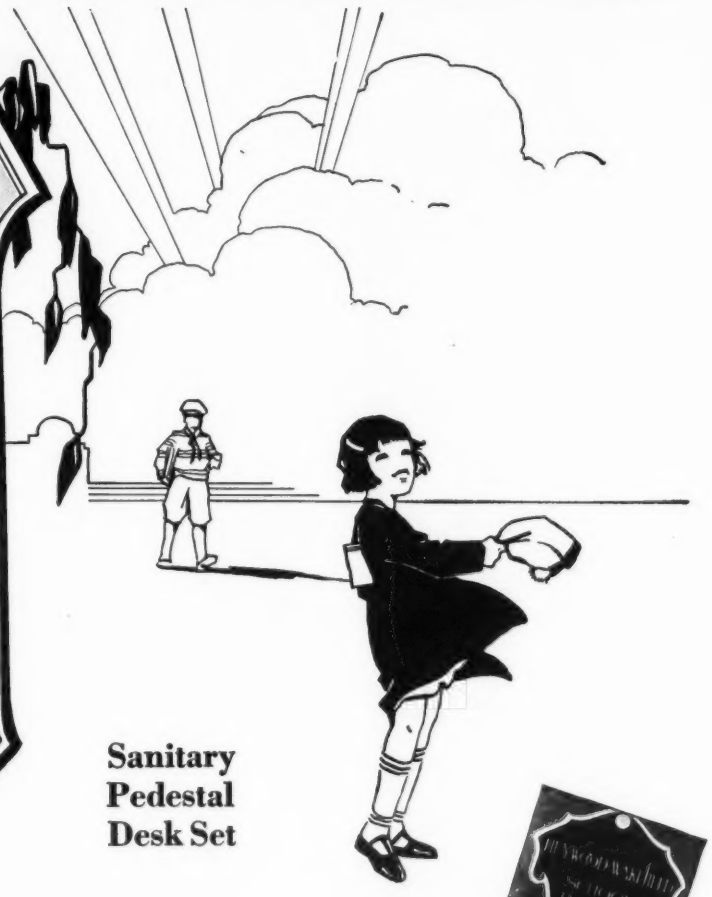
—Mr. W. E. Severn of the Corning Free Academy, has been elected superintendent of schools at Corning, to succeed S. L. Howe.

—Mr. W. Howard Pillsbury of Pelham, N. Y., has been elected superintendent of schools at Schenectady, to succeed A. J. Stoddard, who has gone to Providence, R. I.

—Mr. Leroy Fair of Vigo county, Ind., has been appointed assistant superintendent of schools at Terre Haute. Mr. Fair will take over the duties of business manager and director.

—Supt. P. M. Neilson of Tooele, Utah, has been reelected for a new term of two years.

Promotes Cleanliness in Every Classroom



Sanitary Pedestal Desk Set

Send for our new School Furniture Catalogue 103-S

HERE is a desk that has been purposely designed to promote classroom cleanliness. Many prominent educators have approved the Heywood-Wakefield Sanitary Pedestal Desk and installed it in their schools because they realize that clean surroundings not only protect the health of a child, but also have a direct bearing on his cultural education. Each unit of this desk is supported by only one heavy gauge steel base. Consequently, a much greater floor area is noticeable to the pupil, encouraging the idea of cleanliness and deterring those minded to litter the floor with scrap paper, etc. The Sanitary Pedestal Desk permits closer spacing and narrower aisles than ordinary desk sets, simplifies sweeping and cleaning because there are no inaccessible corners or crevices on the standards, and lends an attractive, business-like appearance to the classroom. Ask your nearest H-W sales office to demonstrate in detail the advantages of this modern and practical school desk.

SALES OFFICES

Baltimore, Md.
Boston, Mass.
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New Orleans, La.
New York, N. Y.
Oklahoma City, Okla.
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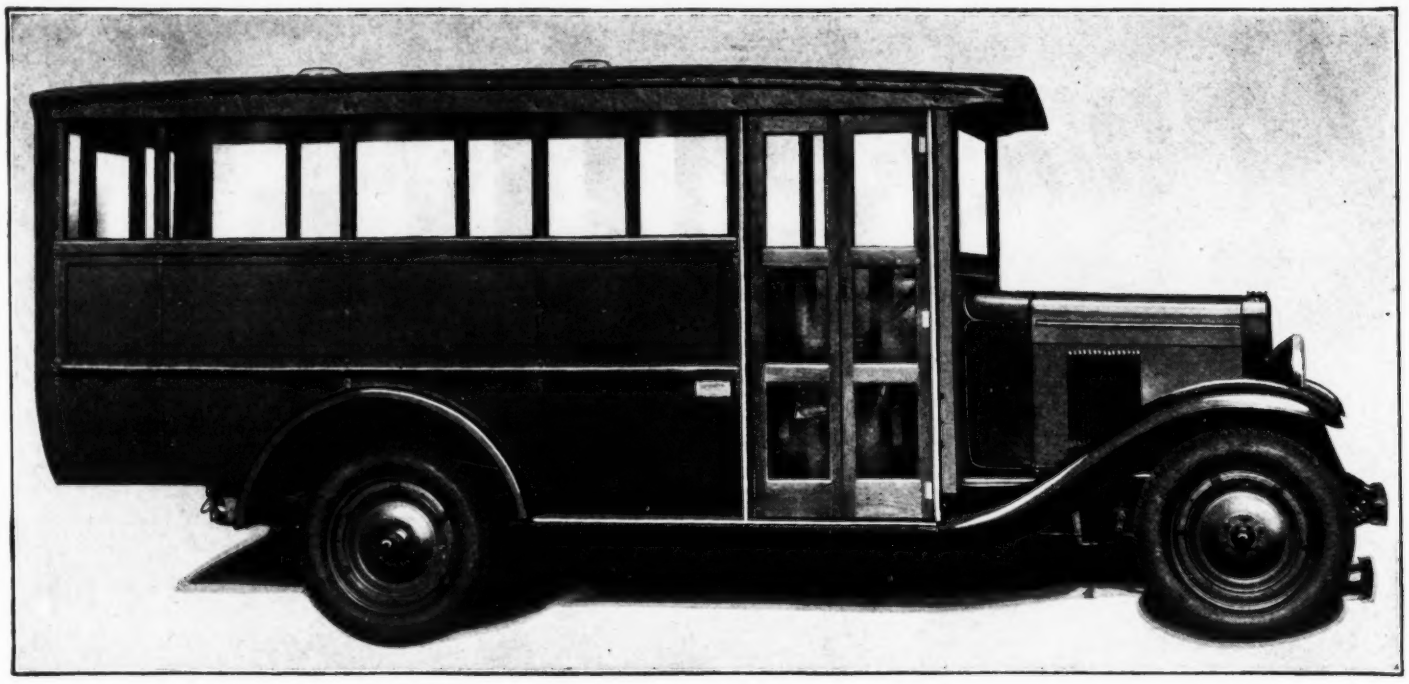
HEYWOOD-WAKEFIELD

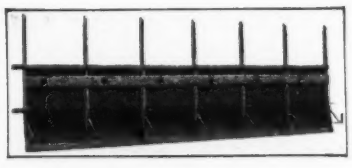
MAKERS OF PRACTICAL SCHOOL SEATING



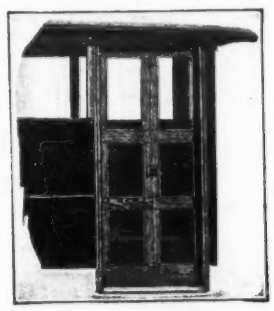
WAYNE Buses are always Available - - - 52 Mounting Stations Insure - - - Quick Delivery - Positive Bus Maintenance

WAYNE, by maintaining Mounting Stations at principal locations, all over the country, makes delivery not only prompt, but convenient. But more important, these Mounting Stations afford speedy service help which is of first importance in safe school bus maintenance.

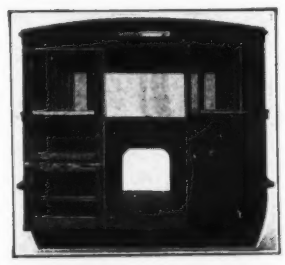
WAYNE Safety is rapidly becoming the determining factor in school bus purchases. WAYNE Bus Bodies are better built, but the cost is surprisingly low. Write.



Strongly Braced—Solidly Built



Entrance doors, closed. Glass full length. Driver can see curb or roadside.



Strength Where Needed

Entrance doors, open 27" width with step fully enclosed for safety.

THE WAYNE WORKS, INC.

Richmond, Indiana, U. S. A.

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Elliott Higgins, 222 Blanchard St., Seattle, Washington
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E. J. Herrmann, 904 N. Senate Ave., Indianapolis, Indiana
Chas. B. Ring, 385 Liberty St., Springfield, Mass.
W. R. Couch, Borden Ave. & Van Dam St., Long Island City, N. Y.
J. F. McCarthy, 3642 Bellecrest Ave., E. Hyde Park, Cincinnati, O.
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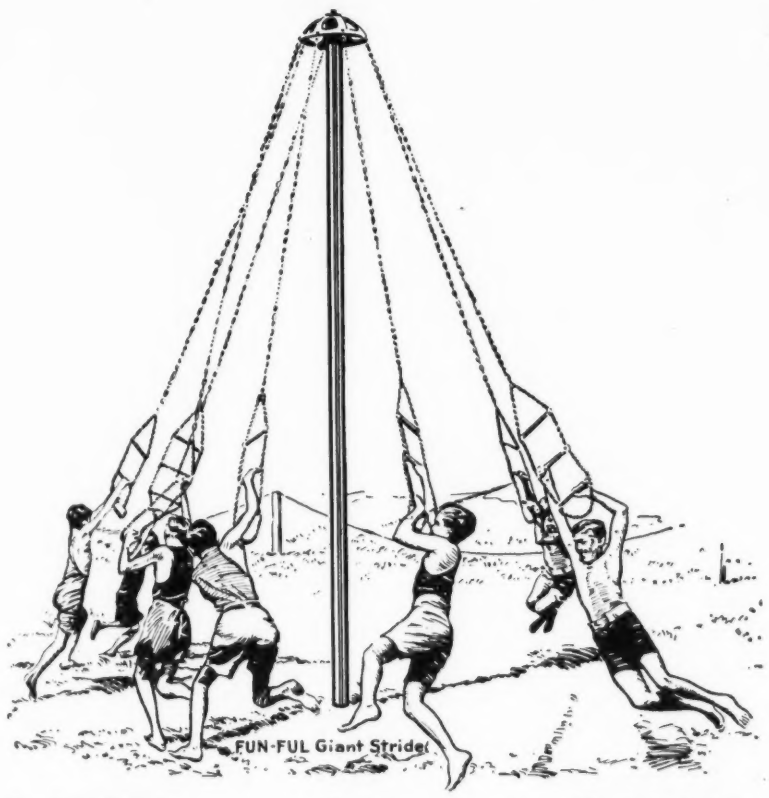
Since 1868

MORE American Schoolgrounds are FUN-FUL Equipped



See-Saw Boards *Traveling Rings* *Giant Strides*
Trapeze *Chutes* *Swings*
Horizontal Bars *Climbing Poles* *Ocean Waves*
and a full line of swimming pool equipment

than are equipped with any other make of playground apparatus

Because in Hill-Standard's famous FUN-FUL Play Equipment is found the perfection which other play equipment approaches.

That FUN-FUL Play Equipment is preferred to every other make is not due alone to the fact that Hill-Standard was the pioneer who developed many of the popular play devices now found on every American playground, nor that the important refinements introduced by Hill-Standard have since been copied by other manufacturers—no! The fundamental reason for FUN-FUL supremacy is that straight, point-by-point comparison with any other line reveals that none equals FUN-FUL for safety, durability, economy and fun-giving quality.

About thirty years devoted to the development of children's outdoor health-building play equipment exclusively, has made the FUN-FUL line the most complete.

Complete information on request.

DIVISION F

HILL-STANDARD CO.

EST. 1900

Anderson, Indiana, U.S.A.

Largest manufacturer of playground and swimming pool equipment

School-Board News

A SHORT COURSE FOR SCHOOL TRUSTEES

A short course for school trustees was held during the week of June 10 in connection with a school of citizenship and public administration at the University of Southern California. The program which was developed from a series of conferences with superintendents of schools in the vicinity of Los Angeles, was successful in meeting a very definite need on the part of school officials.

The course for school trustees concerned itself with the problems of school boards and was arranged in the form of lectures and round-table discussions, with experienced educational leaders in charge.

Among the topics taken up in the short course were: The Powers, Duties, and Responsibilities of Board Members; The Relation of the Board of Education to the Staff; Public Relationships of the Board of Education; The Control of Public-School Finance.

SCHOOL BOARD NEWS

—Hoquiam, Wash. Criminal prosecution of the entire school board as a result of a rodeo alleged to have been sponsored by the board has been sought by the Washington State Humane Society under the direction of the state president. The action was begun on the charge of cruelty to animals, and was directed against the board, the superintendent, and Virgil Doty, rodeo promoter.

—Hopkinsville, Ky. The city authorities have been ordered to pay the sum of $12,610 to the local school board. Under a recent court decision, the board won its suit to recover the above amount. The payment represents the sum derived from penalties and interest which the city had failed to pay over to the board.

—The school board of Racine, Wis., has taken steps to carry compensation insurance on its employees in the school buildings. Carpenters, painters, janitors, and janitors' assistants will be affected by the new insurance plan. It is estimated the insurance will cost much less than the present custom which allows injured employees two weeks' salary while absent from their work.

—Manitowoc, Wis. The city council has ordered that funds requested for repairwork on city schools be denied until after the city has conducted an investigation of the particular needs. The board of education had submitted a statement calling for $18,198 for school repairs. Although the request for the funds had been denied, it was stated that the necessary money would be granted if the need were proved.

—The board of education of Jackson county, Iowa, has adopted uniform textbooks for the rural schools of the county. The adoptions followed a hearing of representatives of twenty book companies who sought the business.

—Johnstown, Pa. The school board has adopted a plan for the crediting of substitute teachers with experience credits. Under the new plan, substitute teachers will be credited with a half year's experience upon the completion of ninety days in the classroom.

—The school board of Johnstown, Pa., has fixed the commission for the school tax collector at three eighths of one per cent on all taxes collected before the date of delinquency; two and one-half per cent on the collection of delinquent taxes with the provision that the maximum shall not exceed $8,000, and a 50 per cent commission on all added assessments.

—The Arkansas state textbook commission has adopted a resolution, asking schoolbook publishers to designate Little Rock as the f.o.b. shipping point for adopted books to be sold in the state. The commission considered plans for enforcing a new textbook law providing that publishers may submit bids designating any place they choose as an f.o.b. shipping point, and limiting the commission of retail dealers to fifteen per cent of the wholesale price at the designated shipping point. The sponsors of the bill in the legislature contended that it would eliminate the central depository and that it would reduce the price of schoolbooks materially. The commission pointed out that the schools of the state would receive better service if all the publishers the matter of adjusting their contracts Rock as the central shipping point. The state superintendent has already taken up with the publishers the matter of adjusting their contracts to comply with the new law.

—Waltham, Mass. With the opening of the next school year, the senior high school will be conducted on the two-session plan. The action has been taken because of the lack of sufficient housing facilities to take care of all the students at one session.

—Owosso, Mich. The school board has leased the local athletic park for the High-School Stadium Corporation for a term of thirty years, at a rental of one dollar. The corporation is an organization formed to promote and finance a stadium, with a seating capacity of 2,000.

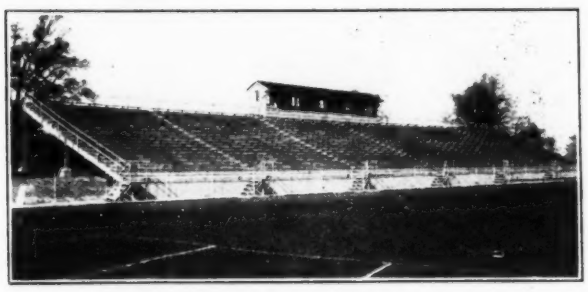
—The school board at Stillwater, Minn., has purchased an athletic field. The field is 1,000 ft. long and 300 ft. wide and will be surfaced and fenced during the present summer. It will be used for the first time next fall.

—School boards of Illinois will be required to pay six per cent interest on all money borrowed on tax-anticipation warrants, as a result of a bill recently passed by the state legislature. In former years, the school boards were able to borrow money at an interest not exceeding five per cent. The change was made as a result of the pressure brought to bear by bankers throughout the state.

—Boards of education in Ohio are given power under the law to appoint teachers, according to a recent ruling of Mr. J. L. Clifton, director of the state education department, in answer to an inquiry of Dr. C. F. Kinsey of East Liverpool, relative to the controversy over the appointment of teachers by a three-to-one vote a week ago. The ruling, in the opinion of Dr. Kinsey, supports the contention that a majority vote is sufficient to name instructors in the absence of a superintendent's recommendations. The president of the board, who had opposed the election of certain teachers, contended that only four votes were necessary.

—Jamestown, N. Y. The school board is completing a new administration building, at a cost of approximately $75,000. The building contains offices for the board of education, the superintendent of schools, the assistant superintendent, the purchasing agent, the bookkeeper, and the general office staff. There will also be offices for the grade supervisors and the workers in the attendance

Fall will soon be here—



A Pittsburgh-Des Moines All Steel Grandstand
Located at Oxford, Ohio.

providing a maximum seating capacity for any area at a minimum cost

And with the fall comes the most popular of school sports, football.

Football is the best paying individual sport of all school athletics. Is your institution prepared to make its record season financially?

Do you have adequate facilities to draw the big crowds?

The Pittsburgh-Des Moines all-steel grandstand is the one safe, economical stand, and as for cost—our deferred payment plan takes care of that.

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Pittsburgh-Des Moines Steel Company

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department, as well as the superintendent of buildings. A garage for the school automobiles will be provided. The building which is very complete and up-to-date, has been financed by means of a reserve fund which has been provided for in the last two budgets of the board, and no bond issue was necessary.

—Rocky River, Ohio. The board of education has approved a proposal of the Cleveland chamber of commerce for the establishment of a research bureau for the use of the several Greater Cleveland school districts.

—Minneapolis, Minn. With a view of replacing a large amount of property on the tax rolls, the school board has planned to sell, at public auction, several abandoned school sites in various sections of the city. The auction of properties will extend over a period of about three weeks.

—Valley Stream, N. Y. At a meeting of the school board in District No. 24, it was voted to place $40,000 in insurance against airplane damage on the school. The board members object to low flying over the town by the Curtiss Aeroplane Corporation and their action is intended to protect the school from any damage which might result from the crash of an airplane.

—Little Rock, Ark. The board of education of Pulaski county has indefinitely postponed the proposed building program because of inability to dispose of the school bonds. As soon as the bonds can be marketed, they will be sold and the erection of a new rural school will take place.

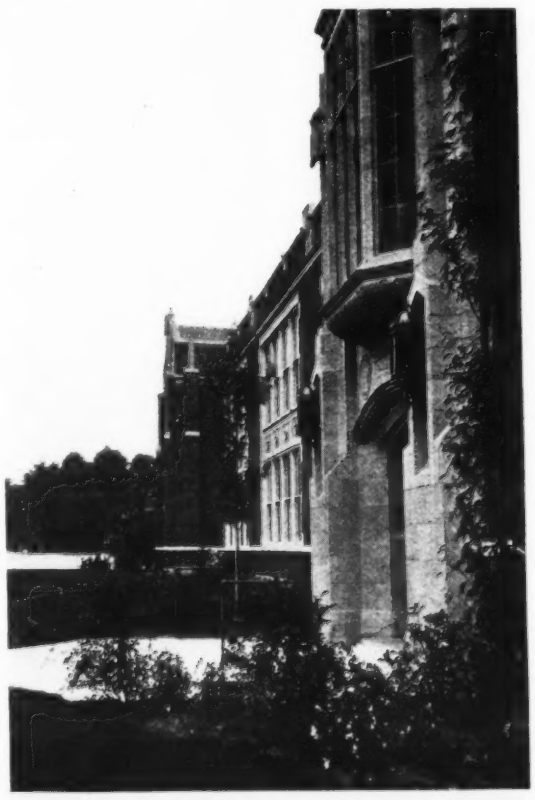
—Santa Ana, Calif. The school board will shortly place insurance for the new schools to be built under the $465,000 bond issue recently approved by the voters.

—Milwaukee, Wis. The school board has been prohibited from authorizing the appointment of any official or employee as a legislative counsel or representative in the capital under the terms of the Laffey bill, recently signed by Governor Kohler. The bill provides that the city attorney of Milwaukee shall be the attorney for the school board, and that no school official employee may be appointed for the performance of other school advisory or administrative duties.

—Santa Ana, Calif. The school board has adopted a policy to eliminate all standing committees on the board in the interest of expediency and efficiency. With a board of five members, it is believed that committees are unnecessary and that the board as a whole can pass on problems coming before it with more efficiency than through the committee method.

—Oklahoma City, Okla. The school board is considering a plan for centralizing the business activities of the board under a clerk-business manager. Under the proposed reorganization, the educational affairs will be under the direction of the superintendent of schools and the business affairs under the clerk-business manager.

—Eugene, Oreg. The school board of Dist. No. 4 has approved a resolution to use the $5,000 remaining in the emergency fund this year for the retirement of outstanding warrants. The action inaugurates the board's proposed debt reduction program and replaces a program for summer repairs and renovation which had been previously planned.



DETAIL OF EDISON ELEMENTARY SCHOOL, DENVER, COLO.

Following the rejection of the budget by the taxpayers at the polls, the school board has delayed action on a new budget until there is a sufficient demand from the taxpayers for framing a budget in excess of the 6-per-cent limitation.

—Iron River, Mich. Following a study of insurance based on the appraisal of school buildings, the board has begun the distribution of the insurance to be carried on each of the schools in the township. The insurance will be on the blanket policy and will go into effect immediately. A study of the insurance carried by the district over a period of years shows over-insurance on buildings, and under-insurance of $15,025 on contents.

—The school board of Topeka, Kans., recently received bids from local dealers for the winter's supply of fuel for the schools. The board has awarded a contract to the Standard Coal Company for 700 tons of coal, at $6 for semianthracite, and $4.70 for southern Kansas soft coal, or a total of approximately $16,000.

—The attorney general of Wisconsin has recently ruled that a member of a school board who owns a bookshop and sells books, is disqualified from serving on the board, even though he may never have sold books to the school. The decision was given in the case of a member of the Langlade county normal school, who owns a bookshop in Antigo and sells books.

—Butte, Mont. The school board has announced that it will take radical action to eradicate vandalism on school property. Parents will be held responsible for offenses committed by children. A recent report to the board showed that a total of 57 windows had been broken since May 24.

—Pontiac, Mich. Under a new policy adopted by the school board, all standing committees have been eliminated. In the future, all committees will function as a committee of the whole board.

—Oklahoma City, Okla. The school board has awarded contracts for school supplies, amounting to approximately $40,000.

—The governor of Wisconsin has signed a bill, which provides that the school board of Edgerton shall be elected at an annual meeting in July, as it was prior to the last April election. At the last election, an attempt was made to elect board mem-

(Concluded on Page 100)

Last Call!

This has been the greatest year in sales of Dodge Brothers School Buses. To insure safe, comfortable, dependable and economical transportation for your school— ***beginning with September term*** **— you are urged to order from your Dodge Brothers dealer at once.**

DODGE BROTHERS
SCHOOL BUSES

CHRYSLER MOTORS PRODUCT

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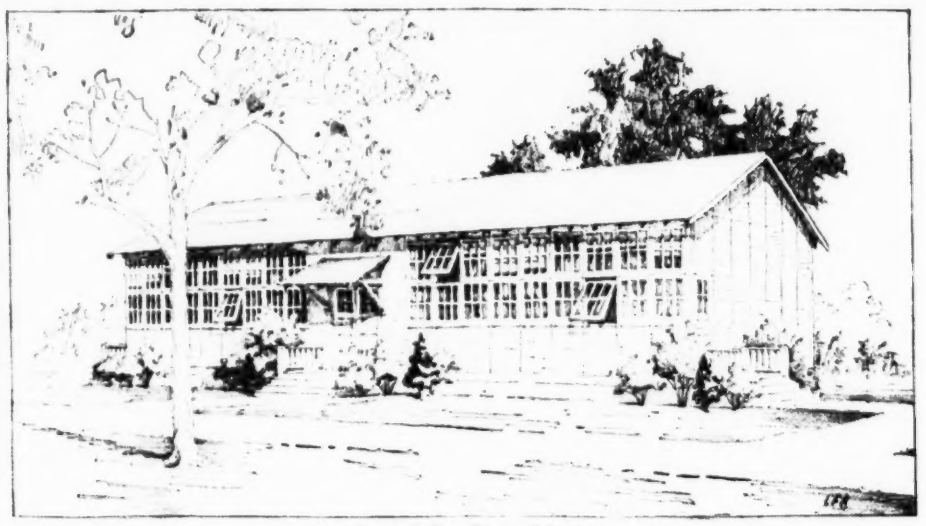

Typical Two-Room School

Stronger, Airier, *Insulated* Buildings for Every School Housing Need

Circle A Schools and Gymnasiums provide attractive quarters for any size of student body—*at a reasonable cost and in a very short time.* For instance: 4 men erect the one-room school in five days. Other buildings "go up" correspondingly as fast. ¶ Circle A walls are insulated—four layers thick. They keep out heat, cold, and noise. ¶ Circle A Buildings are reinforced at every three feet and at all four corners. They are truly more rigid than most frame buildings. ¶ And, last but very important—Circle A Buildings are handsome substantial structures that can stand with pride in the most expensive company. Send for interesting details. No obligation.

Typical Gymnasium

CIRCLE A PRODUCTS CORP.
600 S. 25th St., Newcastle, Ind.

CIRCLE A BUILDINGS
Portable

(Concluded from Page 98)

bers by writing in the names of candidates on the ballots. The passage of the bill has eliminated the controversy in the school board's affairs.

—The school board of Milwaukee, Wis., is prohibited from authorizing the appointment of any official or employee as a legislative counsel, under the terms of the Laffey bill signed recently by Governor Kohler. The bill provides that the city attorney of Milwaukee shall act as attorney for the school board, and that no school official may be appointed for the performance of other than school supervisory duties.

—President E. M. Williams of the school board of Cleveland, Ohio, has proposed a revision of the present plan for filling vacancies on the school board. Mr. Williams points out that candidates for the board are selected by the citizens' committee, and they are the choice only of members of the committee. Under the present plan there is no provision for a campaign in support of the committee's choices, and this defect has the tendency to force candidates into politics when the theory is that they should not be in politics.

—Lewiston, Me. The school board has vigorously protested a proposal of the city government to include in its contingent fund an appropriation for repairs to the Main Street grammar school. The board's contention is that if any school is to be designated for improvements, the school board should assert its authority, and make the selection of the building. It is the purpose of the city authorities to repair the school buildings, taking them one at a time. It is planned to construct fences around two of the school buildings.

—Peoria, Ill. The school board has attempted to solve its financial problem by asking for a total of $2 tax rate for school purposes, in place of the present $1.37½ rate.

—Marysville, Ohio. The Union county board of education has adopted a resolution authorizing the county auditor to levy a special tax of 2.87 mills for school purposes.

—Columbus, Ohio. The school board has adopted a budget of $6,429,647 for the fiscal year ending December, 1930.

—Rochester, Minn. The school administration offices have been remodeled and redecorated. A large vault has been installed for keeping the records and supplies of the school system.

—Grinnell, Iowa. The school board has adopted a budget of $104,070, which is a reduction of several thousand dollars over that of last year. The largest item in the budget is $75,750 for instruction expenses.

—Pittsburgh, Pa. The school board has awarded contracts for coal to eleven low bidders, at an average cost per ton of $3.52. Under the contracts there will be a saving of 22 cents per ton, or a total saving of $10,340 for the year. The price paid last year was $3.74, which was 28 cents lower than the preceding year.

—Sheridan, Wyo. The school board has awarded contracts totaling $9,683 for supplies for the coming year.

—St. Clairsville, Ohio. Eighteen schools in two townships of Belmont county were abandoned recently. The children are being transported to Morristown and St. Clairsville schools.

—The attempt to retire Superintendent John J. Maddox and filling the position by appointing Assistant Superintendent Henry J. Gerling temporarily is being opposed by Myrt A. Rollins, member of the school board. A legal opinion has been secured to the effect that Maddox may hold over until a permanent successor is appointed.

—Nearly 400 citizens attended a mass meeting at Temple, Calif., to protest against the removal of Principal F. Stanley Powles. The school board decided to stand pat.

—South Bend, Ind. The school board has begun plans for a large playground for the west side of the city. Mr. Edward Smith, superintendent of buildings, has begun a study of plans for the development of the tract.

—Chicago, Ill. The dental clinic, established in the schools the past year, will be abandoned, unless the board of education appropriates $55,000 for the continuation of the work. The city council appropriated $55,000 for the clinic, contingent upon the board's appropriating another $55,000, under a bill passed by the state legislature. The board failed to appropriate the money because of a shortage in the educational fund.

—Royal Oak, Mich. The right of the school board, elected last year, to remain in office, has been upheld by a majority of the supreme court. Under the 1927 law, every city with five or more school districts was ordered to form a new school board and consolidate all the districts within its boundaries. No election was held in Royal Oak until the spring of 1928, a year after the law became effective, and suit was brought to test the right of the board to function.

—Washington, Ind. The local school board has asked Governor Leslie to appeal for permission to disregard a ruling of the state board of health regarding the installation of heating plants in public schools. The school board recently rejected ten bids on heating plants because they were excessive in amount. A saving of $8,000 is anticipated if the governor favors the appeal.

—Naugatuck, Conn. The school board has refused to approve a vote of the freeman providing for an increase of $100 a year in the maximum salaries of the teachers. This is the second time the movement to increase salaries has failed, despite the fact that the money has been provided for in the local tax levy.

—Racine, Wis. Upon the recommendation of the city attorney, the school board has voted to carry compensation insurance on its employees in the school buildings. Carpenters, painters, janitors, and janitor assistants will be affected under the new insurance plan. It is estimated that the insurance will not cost as much as the present system under which employees injured while at work are given two weeks' salary.

—Anderson, Ind. The school board has paid a bill of $2,676, representing an arrearage due the city water department for water service furnished the city schools. The water service had been shut off from fifteen school buildings pending the payment of the bill.

—Mr. R. Lester Kelly has been elected president of the board of education at Tacoma, Wash. Rev. C. Oscar Johnson is the new member of the board. Mrs. Rhoda B. Miller, Mr. R. Lester Kelly, Mr. Samuel B. Stocking, and Mr. A. A. Rankin are the holdover members.

—Cincinnati, Ohio. Mr. J. H. Markworth, president of the school board, has suggested that the name of the Western Hills High School be changed to the Randall J. Condon High School, as a mark of respect to Mr. Condon who retires this year as head of the school system. The proposed change will be delayed until the full quorum is present to act on the suggestion of Mr. Markworth.

A Weighty School Board

The school board at Crowder, Okla., is at least physically fit to handle education's most weighty problems. On the scales its three members total 1,001 pounds. J. J. Hollabaugh leads at 460, A. B. Allen weighs 276, and P. C. Rutledge 265.

Ocean Wave,

a ride on Neptune's Steeds!

The Medart Catalog of Playground Equipment is a guide and a help to anyone responsible for the success of a playground. A copy of this catalog will be sent free on request.

TO YOUNGSTERS, restless little souls seeking kaleidoscopic outlets for their energies, the Playground is Fairyland. Here they find adventure, ever new, ever changing. Here in imagination their conquests carry them through the realms of land and sea and air. On ocean wave; in fancy they are riding a wonderous sea horse through the foaming deep. So it is important that the public playground that serves its mission fully provide apparatus not alone in sufficient quantity so that there is fun enough to go around; but that there be apparatus in sufficient variety to sustain interest. Beyond this, playground apparatus should be sturdily built to serve many seasons of use; and provided with the features that assure safety. Medart equipment meets every playground requirement; for it represents the result of 56 years of specialized manufacturing experience.

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. . . better to say it with a fence!

"STAY on the playground" . . . To the lively boy and girl this is just one of a hundred rules. Just another rule to remember . . . or to break when the chance comes. Children receive so many commands that little attention is paid to any of them.

The only sure way to keep children on the playground . . . in safety . . . is to prevent escape. Children cannot dash into the highway when the playground is enclosed with an Anchor Playground Fence.

You can have Anchor Fence protection for your playground at a very low yearly cost. The nearest Anchor office is a part of the Anchor National Fencing Service—competent to advise and enclose your playground. Write for information and special catalog.

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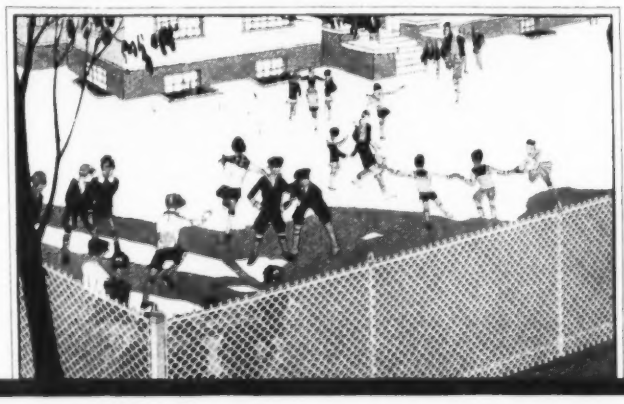
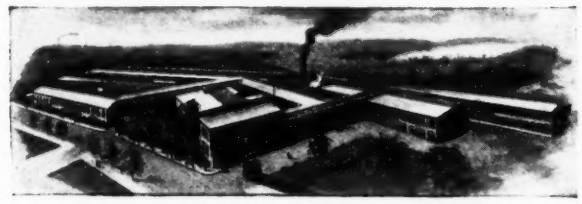
Albany; Boston; Charlotte; Chicago; Cincinnati; Cleveland; Detroit; Hartford; Houston; Los Angeles; Mineola, L. I.; Newark; New York; Philadelphia; Pittsburgh; St. Louis; San Francisco; Shreveport

Representatives in all principal cities. Consult local classified directory.

ANCHOR *Fences*



Held in the Leash!



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Our capacity is limited! Avoid hectic buying. Send your order for Narragansett Equipment right now and we will serve you to the best of our ability.

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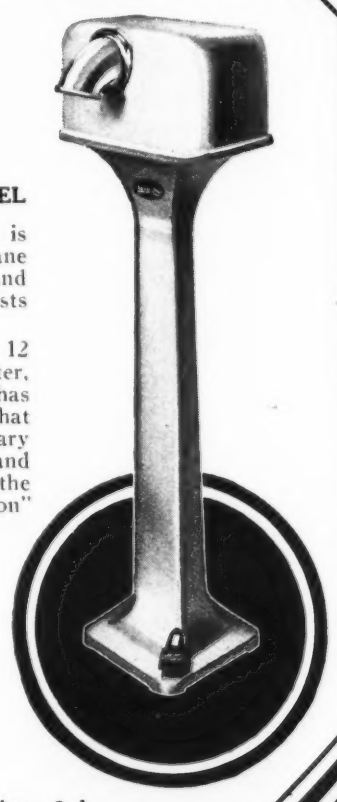
the new "SF"
Sani-Dri



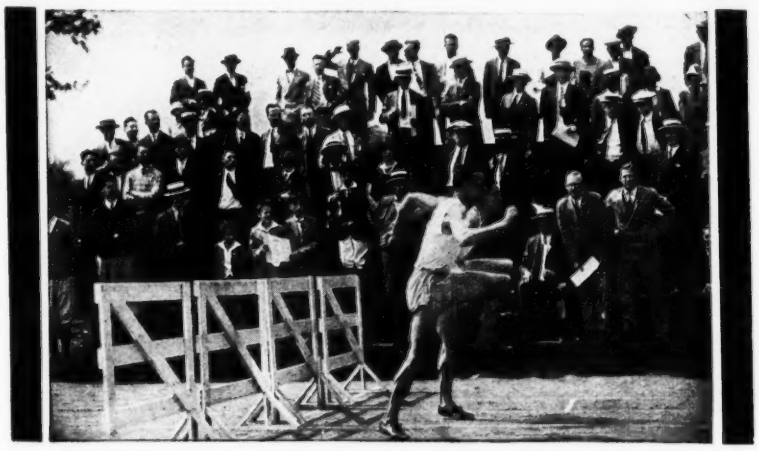
DRIES QUICKER THAN A TOWEL

Sanitary school washroom service is advanced to a new and higher plane with the new "SF" SANI-DRI—and the bugaboo of continual towel costs is gone.

The new "SF" SANI-DRI with its 12 new improvements is a faster, quieter, more sanitary drying service than has ever been offered before. Think what it means to have a thoroughly sanitary drying service that is quiet, quick, and costs less to operate. Write for the new booklet "12 Points of Perfection" today and satisfy yourself that there is no better drying service than SANI-DRI.

QUIET
EFFICIENT
DEPENDABLE

Electrical Division—8-A
CHICAGO HARDWARE FOUNDRY CO.
North Chicago, Illinois



EVERY MONTH IN THE YEAR

these safe seats are useful

Now, for your basketball, later for track and outdoor sports, and in the fall for football — Circle A Bleachers can mean bigger crowds — bigger gate receipts.

For crowds will come to the game that gives good seats. And Circle A seats are comfortable. Edges are rounded. There's plenty of room for knees and feet. There's a clear view for all.

They set up quickly. They are as good indoors as out, and they can be transported without trouble.

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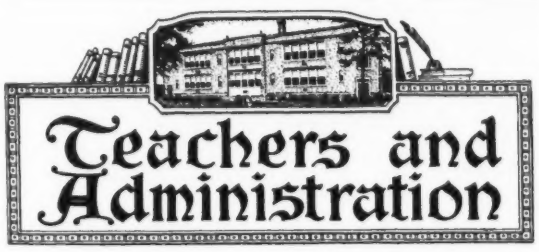


Teachers and Administration

RULES FOR TEACHERS

The school board of Kalamazoo, Mich., has adopted new rules to govern the appointment and compensation of teachers on the school staff.

In order to be eligible to appointment, teachers must have a normal-school or college education, or its equivalent, and at least one year of successful experience in schools of acceptable rank. It is provided that especially meritorious teachers, without normal-school or college training, but with three or more years of successful experience, may be appointed, at the discretion of the board and superintendent.

Teachers excused from duty on account of personal sickness will be allowed such absence, without salary deduction for a total not to exceed ten school days in the school year, and three days' full pay will be allowed for absence caused by a death in the immediate family.

All teachers will be given a written notice of their election, together with a copy of the rules. Failure to sign and return the contract by the date specified in the notice will be considered a declination and the position will be declared vacant.

Teachers will be paid one twelfth of the annual salary upon the first of each month, except July, August, and September. At the close of the school year in June, the teachers will receive the tenth and eleventh installments of their salary, and on or about the fifteenth of July following, will be paid the twelfth installment. Any teacher whose length of service does not cover the full time of the contract, provided the remaining terms of the contract have been fulfilled, will receive as many 400ths of the eleventh and twelfth installments as there have been days actually taught by her, or him, during the year, unless the resignation of the said teacher has been caused by personal sickness, in which case she will receive as many 200ths of the eleventh and twelfth installments as there have been days actually taught by her, or him, under the contract.

TEACHERS AND ADMINISTRATION

—New York, N. Y. Holders of junior-high-school promotion licenses will be permitted to teach in nonjunior high schools, under new by-laws adopted by the board of superintendents and approved by the board of education. The purpose of the new rule is to give the board of education power to do as the best interests of the schools require. It was pointed out that there are always enough vacancies in the upper grades to absorb the existing eligible lists of promotion licenses.

—The advisability of reducing the pupil-period load in the junior high schools of New York City has been urged by District Supt. Benjamin Veit, in presenting his budget requirements for the school year 1930. Mr. Veit points out that the present pupil-period load is 34 pupils to each junior-high-school teacher, which is calculated by taking both the academic and industrial classes of these schools as a unit. In the adjustment classes for manually minded pupils, it is found that the per-pupil load is too large to permit the classes to work at their maximum capacity. It has been recommended that the two units be separated for better efficiency and teaching methods.

—Mrs. Anna Haynes Derbyshire of Flint, Mich., resigned after being active as teacher and principal for more than 40 years. She retires with the highest appreciation expressed by the board of education and the public.

—Miss Margaret Uihlein, of the New York City schools, was the honor guest at a dinner given at the Hotel Astor. She had served as teacher and principal for a period of 50 years. She was presented with a diamond wrist watch.

—The board of education at Chandler, Okla., has decided to exclude married-women teachers from employment in the schools.

—The dismissal of eleven teachers at Ottowa, Kans., because they violated the rules of the school system prompts the Abilene Register to speak as follows: "Down at Ottowa the board of education has discharged eleven competent high-school teachers because they attended dances at the Country club and other private parties. An item like this showing Kansas fanaticism will do more harm as it goes over the country than the state chamber of commerce can overcome by a dozen 'surveys.' A reputation for intolerance repels many persons in this world and hurts not only the town in which it exists, but the state as well. You cannot attract residents by sending out news that people here make life a burden for everyone who likes a little harmless pleasure or that the larger the business the keener the regulations laid upon it. Nor can you keep the young generation here by making it against the law to do anything that is enjoyable."

—Hartford, Conn. A new rule recently passed prohibits the employment of married women in clerical positions in the high school. The action was taken after one of the clerks, about to be married, requested that she be allowed to keep her position. Under the new ruling, the clerk in question will be allowed to continue until the end of the fiscal year in September.

—Supt. William J. O'Shea of New York City, in a circular addressed to the principals of the continuation schools, has ordered that teachers observe the 34-hour week required in all schools. Under the order, teachers and substitutes in these schools must devote twenty hours a week to teaching or instructional duties, and five additional hours a week to aiding and counseling students, and giving special instruction or training.

—Boston, Mass. A fight which had been waged for a year and a half by Dr. J. V. Lyons of Dorchester, a member of the school board, to abolish promotional examinations for teachers of the city schools, was won on July 1, when the committee accepted the proposition. Under the new plan, promotions will now be based upon the general work of the teacher. Dr. Lyons had opposed the requirement of college courses for teachers seeking promotion on the basis that the extra study for these examinations produced a great strain on ambitious teachers. He holds that both the schools and the teachers will profit by a lessening of the strain under which the teachers have labored in recent years.

—Desloge, Mo. For the past several years the school board has faced the problem of short tenure of school administrators and teachers and a rapid turnover in the staffs. The community became aroused over the situation and a new board was elected, which is effecting a more stable condition in the teaching turnover. During the next year only two of the 34 teachers will be new to the school system. One of these resigned because of an offer of a better position, and one left because of poor health.

Bonded School Debt of 241 Cities as at January 1, 1929

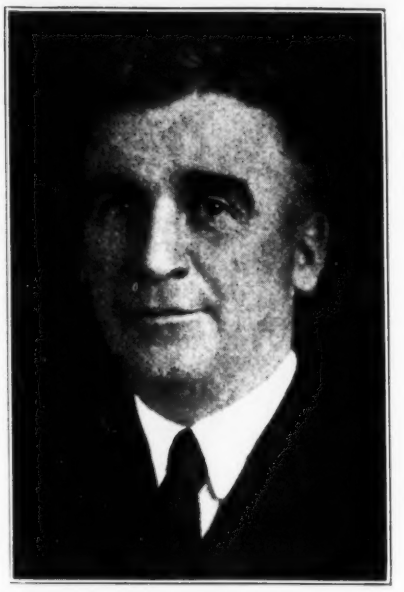
Compiled by the Detroit Bureau of Governmental Research

(From Data Furnished by Members of the Governmental Research Association, City Officials, and Chambers of Commerce)

GROSS BONDED DEBT

	Group I	
	Population 500,000 *and over*	
1.	New York, N. Y.	$301,374,496
2.	Chicago, Ill.	None
3.	Philadelphia, Pa.	64,386,000
4.	Detroit, Mich.	67,364,350
5.	Los Angeles, Calif.	48,183,156
6.	Cleveland, Ohio	28,867,000
7.	St. Louis, Mo.	2,219,000
8.	Baltimore, Md.*[12]	25,862,629
9.	Boston, Mass.	11,333,300
10.	Pittsburgh, Pa.	21,906,950
11.	San Francisco, Calif.	15,675,000
12.	Buffalo, N. Y.	27,224,810
13.	Washington, D. C.	No debt
14.	Milwaukee, Wis.	8,972,750
	Group II	
	Population 300,000 *to* 500,000	
15.	Newark, N. J.	18,169,200
16.	Minneapolis, Minn.	22,223,923
17.	New Orleans, La.	3,865,000
18.	Cincinnati, Ohio	15,405,500
19.	Kansas City, Mo.[1]	21,519,000
20.	Seattle, Wash.	9,964,000
21.	Indianapolis, Ind.	11,221,000
22.	Portland, Ore.[2]	9,099,475
23.	Louisville, Ky.	6,966,400
24.	Rochester, N. Y.	10,579,030
25.	Jersey City, N. J.	13,248,000
26.	Toledo, Ohio	12,679,000
	Group III	
	Population 100,000 *to* 300,000	
27.	Columbus, Ohio	11,206,250
28.	Denver, Colo.	10,115,000
29.	Providence, R. I.	7,300,000
30.	Oakland, Calif.	15,129,773
31.	St. Paul, Minn.	9,546,000
32.	Atlanta, Ga.	5,515,000
33.	Akron, Ohio	7,551,581
34.	Omaha, Nebr.	10,653,250
35.	Birmingham, Ala.	9,647,000
36.	San Antonio, Tex.	3,368,750
37.	Dallas, Texas	6,600,100
38.	Syracuse, N. Y.	9,412,760
39.	Worcester, Mass.	756,000
40.	Richmond, Va.	5,155,395
41.	Memphis, Tenn.	5,183,000
42.	New Haven, Conn.	430,000
43.	Dayton, Ohio	7,577,000
44.	Norfolk, Va.	3,525,175
45.	Youngstown, Ohio	3,853,708
46.	Hartford, Conn.	10,731,500
47.	Houston, Texas*	12,605,500
48.	Fort Worth, Texas	4,924,500
49.	Tulsa, Okla.*	5,640,435
50.	Grand Rapids, Mich.	5,083,000
51.	Bridgeport, Conn.	4,301,000
52.	Miami, Fla.[3]	7,380,800
53.	Des Moines, Iowa	8,116,500
54.	Springfield, Mass.	2,740,900
55.	Flint, Mich.	9,003,500
56.	Oklahoma City, Okla.	5,436,400
57.	Paterson, N. J.	7,989,500
58.	Scranton, Pa.	5,165,000
59.	Jacksonville, Fla.	(Not reporting)
60.	Nashville, Tenn.	1,835,000
61.	Trenton, N. J.	(Not reporting)
62.	Salt Lake City, Utah	3,409,000
63.	Camden, N. J.	4,386,500
64.	Erie, Pa.	4,132,000
65.	Wilmington, Del.	1,170,000
66.	Cambridge, Mass.[4]	.....
67.	Fall River, Mass.	3,306,500
68.	Yonkers, N. Y.	8,651,390
69.	Albany, N. Y.[5]	4,496,270
70.	San Diego, Calif.[6]	5,334,000
71.	New Bedford, Mass.	3,207,000
72.	Kansas City, Kans.*	2,147,000
73.	El Paso, Texas	2,379,000
74.	Duluth, Minn.	4,125,000
75.	Canton, Ohio	6,709,000
76.	Elizabeth, N. J.	4,235,350
77.	Reading, Pa.[10]	6,171,400
78.	Tampa, Fla.[7]	5,247,000
79.	Lowell, Mass.	1,484,250
80.	Tacoma, Wash.	2,482,000
81.	Spokane, Wash.	2,141,000
82.	Long Beach, Calif.	6,712,964
83.	Lynn, Mass.	2,300,000
84.	Knoxville, Tenn.[8]	2,384,000
85.	Fort Wayne, Ind.	3,863,000
86.	Utica, N. Y.	1,895,487
87.	Somerville, Mass.	1,897,000
88.	Waterbury, Conn.	(Not reporting)
	Group IV	
	Population 50,000 *to* 100,000	
89.	Savannah, Ga.*	500,000
90.	Hamtramck, Mich.	2,871,500
91.	Allentown, Pa.	3,525,400
92.	Wichita, Kans.	1,571,100
93.	Evansville, Ind.	2,562,200
94.	Bayonne, N. J.	3,976,400
95.	Lawrence, Mass.	1,436,500
96.	Schenectady, N. Y.	2,485,300
97.	Wilkes-Barre, Pa.	675,000
98.	Gary, Ind.	3,434,000
99.	Harrisburg, Pa.	3,983,500
100.	Highland Park, Mich.	4,945,000
101.	South Bend, Ind.	3,395,000
102.	Manchester, N. H.	1,905,333
103.	Peoria, Ill.	443,000
104.	Rockford, Ill.	1,225,000
105.	Charlotte, N. C.	1,896,000
106.	Shreveport, La.	2,380,000
107.	Sioux City, Iowa	1,865,000
108.	Winston-Salem, N. C.	2,308,000
109.	Lansing, Mich.	5,400
110.	Little Rock, Ark.	1,965,500
111.	Portland, Me.	(Not-reporting)
112.	St. Joseph, Mo.*	972,000
113.	Charleston, S. C.	543,000
114.	Sacramento, Calif.	5,367,000
115.	Saginaw, Mich.*	1,760,000
116.	Binghamton, Mich.	3,503,775
117.	Racine, Wis.	2,324,000
118.	Chester, Pa.	1,835,000
119.	East St. Louis, Ill.	675,000
120.	Johnstown, Pa.	4,630 000
121.	Chattanooga, Tenn.	2,393,500
122.	Terre Haute, Ind.*	1,490,000
123.	Pawtucket, R. I.[4]	.....
124.	Springfield, Ohio	1,442,492
125.	New Britain, Conn.	3,253,000
126.	Troy, N. Y.	1,152,204
127.	Passaic, N. J.	2,396,250
128.	Cicero, Ill.*	586,000
129.	Lincoln, Nebr.[8]	4,626,000
130.	Hoboken, N. J.	3,591,636
131.	Berkeley, Calif.[9]	369,000
132.	Mobile, Ala.	(Not reporting)
133.	Altoona, Pa.*	3,418,000
134.	Wheeling, W. Va.	30,000
135.	Huntington, W. V.	1,624,000
136.	Niagara Falls, N. Y.	5,906,129
137.	Bethlehem, Pa.	3,934,900
138.	Quincy, Mass.	2,278,000
139.	Springfield, Ill.*	382,500
140.	Brockton, Mass.	623,250
141.	East Orange, N. J.	2,359,245
142.	Lakewood, Ohio	4,486,000
143.	Roanoke, Va.	2,650,000
144.	Union City, N. J.	2,248,500
145.	Fresno, Calif.	3,885,000
146.	Jackson, Mich.	2,644,000
147.	Montgomery, Ala.	(Not reporting)
148.	Topeka, Kans.	928,200
149.	Pasadena, Calif.	4,003,954
150.	Portsmouth, Va.	920,000
151.	Pontiac, Mich.	2,885,585
152.	Macon, Ga.	778,000
153.	Holyoke, Mass.	No debt
154.	Covington, Ky.*	910,000
155.	Lancaster, Pa.	3,230,000
156.	Cedar Rapids, Iowa	1,508,000
157.	Wichita Falls, Texas	1,923,000
158.	Oak Park, Ill.	1,634,000
159.	Newton, Mass.	2,084,000
160.	Decatur, Ill.*	1,227,400
161.	Augusta, Ga.	304,000
162.	Kenosha, Wis.	2,663,000
163.	Kalamazoo, Mich.	2,467,000
164.	Beaumont, Texas	2,553,538
165.	Hammond, Ind.	(Not-reporting)
166.	Charleston, W. Va.*	2,665,000
167.	Atlantic City, N. J.*	4,403,000
168.	Mount Vernon, N. Y.	3,349,050
169.	Malden, Mass.	1,250,000
170.	Woonsocket, R. I.	1,292,000
171.	Newport News, Va.*	2,823,392
172.	St. Petersburg, Fla.	4,455,750
173.	Medford, Mass.	(Not reporting)
174.	New Castle, Pa.	2,470,000
175.	Davenport, Iowa	996,000
176.	Greensboro, N. C.	993,000
177.	Springfield, Mo.	614,500
178.	Stockton, Calif.*	1,312,000
179.	East Chicago, Ind.	1,281,000
180.	Columbia, S. C.*	1,202,000
181.	Galveston, Texas	1,073,000
182.	Madison, Wis.	1,916,000
183.	McKeesport, Pa.*	1,573,000
184.	Perth Amboy, N. J.	1,604,000
185.	Elmira, N. Y.	598,000
186.	Pittsfield, Mass.	483,000
	Group V	
	Population 30,000 *to* 50,000	
187.	York, Pa.	831,000
188.	Chelsea, Mass.	1,185,500
189.	Lima, Ohio	953,002
190.	Bay City, Mich.	1,930,000
191.	Haverhill, Mass.	343,000
192.	New Rochelle, N. Y.	4,495,676
193.	Lexington, Ky.	768,000
194.	Evanston, Ill.*	873,000
195.	Durham, N. C.	1,729,913
196.	Battle Creek, Mich.	749,836
197.	Aurora (East), Ill.*	586,000
	Aurora (West), Ill.*	475,000
198.	Muncie, Ind.*	1,163,000
199.	Columbus, Ga.	505,600
200.	Waco, Texas	1,410,500
201.	Muskegon, Mich.	1,965 000
202.	Jamestown, N. Y.	1,950,000
203.	Brookline, Mass.	736,600
204.	San Jose, Calif.*	1,219,000
205.	Chicopee, Mass.*	658,500
206.	Fitchburg, Mass.	463,000
207.	Austin, Texas	1,031,000
208.	Lorain, Ohio	1,525,725
209.	Pueblo, Colo.	1,394,000
210.	Hamilton, Ohio	1,094,639
211.	Williamsport, Pa.	1,370,000
212.	Stamford, Conn.*	3,361,500
213.	Butte, Mont.*	299,683
214.	Everett, Mass.	1,067,000
215.	Salem, Mass.	746,500
216.	Rock Island, Ill.	375.000
217.	Poughkeepsie, N. Y.	1,301,050
218.	Dubuque, Iowa	1,316,000
219.	Council Bluffs, Iowa*	840,000
220.	Phoenix, Ariz.*	1,030,000
221.	Joliet, Ill.	1,780,000
222.	Portsmouth, Ohio	1,726,100
223.	West New York, N. J.	2,626,500
224.	New Brunswick, N. J.	1,622,000
225.	Taunton, Mass.	794,000
226.	Kokomo, Ind.*	635,500
227.	Quincy, Ill.*	360 000
228.	Superior, Wis.	1,294,000
229.	East Cleveland, Ohio	3,682,000
230.	Wilmington, N. C.	(Not reporting)
231.	Ogden, Utah*	828,000
232.	Danville, Ill.	645,000
233.	Lynchburg, Va.[5]	1 046.602
234.	Easton, Pa.*	2,143,000
235.	Hazelton, Pa.	1,537,000
236.	Petersburg, Va.	800,000
237.	Cranston, R. I.	1,663,000
238.	Waterloo (East), Iowa	579,500
	Waterloo (West), Iowa	807,000
239.	Meriden, Conn.	990,000
240.	Waltham, Mass.*	1,054,000
241.	Lewiston, Me.	95,000
242.	Orange, N. J.	1,537,000
243.	Clifton, N. J.	1,833,400
244.	Amsterdam, N. Y.*	1,358,550
245.	Norristown, Pa.	(Not reporting)
246.	Warren, Ohio	2,290,901
247.	Green Bay, Wis.*	1,876,000
248.	Colorado Springs, Colo.	1,122,000
249.	Revere, Mass.	1,057,820
250.	Elgin, Ill.*	170,000
251.	Auburn, N. Y.	62,000

(Concluded on Page 107)



JAMES M. McNAMARA
Superintendent of Schools, Fitchburg, Mass.
(See Page 84)

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MIGHTY MONARCH OF THE A

Bonded School Debt of 241 Cities as at January 1, 1929

Compiled by the Detroit Bureau of Governmental Research

(From Data Furnished by Members of the Governmental Research Association, City Officials, and Chambers of Commerce)

GROSS BONDED DEBT

	Group I	
	Population 500,000 and over	
1.	New York, N. Y.	$301,374,496
2.	Chicago, Ill.	None
3.	Philadelphia, Pa.	64,386,000
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5.	Los Angeles, Calif.	48,183,156
6.	Cleveland, Ohio	28,867,000
7.	St. Louis, Mo.	2,219,000
8.	Baltimore, Md.*[12]	25,862,629
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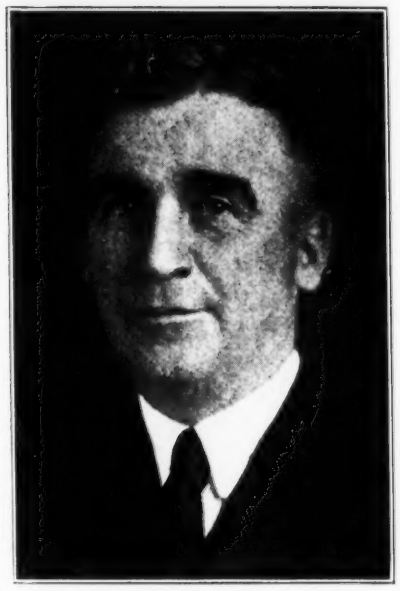
10.	Pittsburgh, Pa.	21,906,950
11.	San Francisco, Calif.	15,675,000
12.	Buffalo, N. Y.	27,224,810
13.	Washington, D. C.	No debt
14.	Milwaukee, Wis.	8,972,750
	Group II	
	Population 300,000 to 500,000	
15.	Newark, N. J.	18,169,200
16.	Minneapolis, Minn.	22,223,923
17.	New Orleans, La.	3,865,000
18.	Cincinnati, Ohio	15,405,500
19.	Kansas City, Mo.[1]	21,519,000
20.	Seattle, Wash.	9,964,000
21.	Indianapolis, Ind.	11,221,000
22.	Portland, Ore.[2]	9,099,475
23.	Louisville, Ky.	6,966,400
24.	Rochester, N. Y.	10,579,030
25.	Jersey City, N. J.	13,248,000
26.	Toledo, Ohio	12,679,000
	Group III	
	Population 100,000 to 300,000	
27.	Columbus, Ohio	11,206,250
28.	Denver, Colo.	10,115,000
29.	Providence, R. I.	7,300,000
30.	Oakland, Calif.	15,129,773
31.	St. Paul, Minn.	9,546,000
32.	Atlanta, Ga.	5,515,000
33.	Akron, Ohio	7,551,581
34.	Omaha, Nebr.	10,653,250
35.	Birmingham, Ala.	9,647,000
36.	San Antonio, Tex.	3,368,750
37.	Dallas, Texas	6,600,100
38.	Syracuse, N. Y.	9,412,760
39.	Worcester, Mass.	756,000
40.	Richmond, Va.	5,155,395
41.	Memphis, Tenn.	5,183,000
42.	New Haven, Conn.	430,000
43.	Dayton, Ohio	7,577,000
44.	Norfolk, Va.	3,525,175
45.	Youngstown, Ohio	3,853,708
46.	Hartford, Conn.	10,731,500
47.	Houston, Texas*	12,605,500
48.	Fort Worth, Texas	4,924,500
49.	Tulsa, Okla.*	5,640,435
50.	Grand Rapids, Mich.	5,083,000
51.	Bridgeport, Conn.	4,301,000
52.	Miami, Fla.[3]	7,380,800
53.	Des Moines, Iowa	8,116,500
54.	Springfield, Mass.	2,740,900
55.	Flint, Mich.	9,003,500
56.	Oklahoma City, Okla.	5,436,400
57.	Paterson, N. J.	7,989,500
58.	Scranton, Pa.	5,165,000
59.	Jacksonville, Fla.	(Not reporting)
60.	Nashville, Tenn.	1,835,000
61.	Trenton, N. J.	(Not reporting)
62.	Salt Lake City, Utah	3,409,000
63.	Camden, N. J.	4,386,500
64.	Erie, Pa.	4,132,000
65.	Wilmington, Del.	1,170,000
66.	Cambridge, Mass.[4]	.....
67.	Fall River, Mass.	3,306,500
68.	Yonkers, N. Y.	8,651,390
69.	Albany, N. Y.[5]	4,496,270
70.	San Diego, Calif.[6]	5,334,000
71.	New Bedford, Mass.	3,207,000
72.	Kansas City, Kans.*	2,147,000
73.	El Paso, Texas	2,379,000
74.	Duluth, Minn.	4,125,000
75.	Canton, Ohio	6,709,000
76.	Elizabeth, N. J.	4,235,350
77.	Reading, Pa.[10]	6,171,400
78.	Tampa, Fla.[7]	5,247,000
79.	Lowell, Mass.	1,484,250
80.	Tacoma, Wash.	2,482,000
81.	Spokane, Wash.	2,141,000
82.	Long Beach, Calif.	6,712,964
83.	Lynn, Mass.	2,300,000
84.	Knoxville, Tenn.[5]	2,384,000
85.	Fort Wayne, Ind.	3,863,000
86.	Utica, N. Y.	1,895,487
87.	Somerville, Mass.	1,897,000
88.	Waterbury, Conn.	(Not reporting)
	Group IV	
	Population 50,000 to 100,000	
89.	Savannah, Ga.*	500,000
90.	Hamtramck, Mich.	2,871,500
91.	Allentown, Pa.	3,525,400
92.	Wichita, Kans.	1,571,100
93.	Evansville, Ind.	2,562,200
94.	Bayonne, N. J.	3,976,400
95.	Lawrence, Mass.	1,436,500
96.	Schenectady, N. Y.	2,485,300
97.	Wilkes-Barre, Pa.	675,000
98.	Gary, Ind.	3,434,000
99.	Harrisburg, Pa.	3,983,500
100.	Highland Park, Mich.	4,945,000
101.	South Bend, Ind.	3,395,000
102.	Manchester, N. H.	1,905,333
103.	Peoria, Ill.	443,000
104.	Rockford, Ill.	1,225,000
105.	Charlotte, N. C.	1,896,000
106.	Shreveport, La.	2,380,000
107.	Sioux City, Iowa	1,865,000
108.	Winston-Salem, N. C.	2,308,000
109.	Lansing, Mich.	5,400
110.	Little Rock, Ark.	1,965,500
111.	Portland, Me.	(Not-reporting)
112.	St. Joseph, Mo.*	972,000
113.	Charleston, S. C.	543,000
114.	Sacramento, Calif.	5,367,000
115.	Saginaw, Mich.*	1,760,000
116.	Binghamton, Mich.	3,503,775
117.	Racine, Wis.	2,324,000
118.	Chester, Pa.	1,835,000
119.	East St. Louis, Ill.	675,000
120.	Johnstown, Pa.	4,630 000
121.	Chattanooga, Tenn.	2,393,500
122.	Terre Haute, Ind.*	1,490,000
123.	Pawtucket, R. I.[4]	.....
124.	Springfield, Ohio	1,442,492
125.	New Britain, Conn.	3,253,000
126.	Troy, N. Y.	1,152,204
127.	Passaic, N. J.	2,396,250
128.	Cicero, Ill.*	586,000
129.	Lincoln, Nebr.[8]	4,626,000
130.	Hoboken, N. J.	3,591,636
131.	Berkeley, Calif.[9]	369,000
132.	Mobile, Ala.	(Not reporting)
133.	Altoona, Pa.*	3,418,000
134.	Wheeling, W. Va.	30,000
135.	Huntington, W. V.	1,624,000
136.	Niagara Falls, N. Y.	5,906,129
137.	Bethlehem, Pa.	3,934,900
138.	Quincy, Mass.	2,278,000
139.	Springfield, Ill.*	382,500
140.	Brockton, Mass.	623,250
141.	East Orange, N. J.	2,359,245
142.	Lakewood, Ohio	4,486,000
143.	Roanoke, Va.	2,650,000
144.	Union City, N. J.	2,248,500
145.	Fresno, Calif.	3,885,000
146.	Jackson, Mich.	2,644,000
147.	Montgomery, Ala.	(Not reporting)
148.	Topeka, Kans.	928,200
149.	Pasadena, Calif.	4,003,954
150.	Portsmouth, Va.	920,000
151.	Pontiac, Mich.	2,885,585
152.	Macon, Ga.	778,000
153.	Holyoke, Mass.	No debt
154.	Covington, Ky.*	910,000
155.	Lancaster, Pa.	3,230,000
156.	Cedar Rapids, Iowa	1,508,000
157.	Wichita Falls, Texas	1,923,000
158.	Oak Park, Ill.	1,634,000
159.	Newton, Mass.	2,084,000
160.	Decatur, Ill.*	1,227,400
161.	Augusta, Ga.	204,000
162.	Kenosha, Wis.	2,663,000
163.	Kalamazoo, Mich.	2,467,000
164.	Beaumont, Texas	2,553,538
165.	Hammond, Ind.	(Not-reporting)
166.	Charleston, W. Va.*	2,665,000
167.	Atlantic City, N. J.*	4,403,000
168.	Mount Vernon, N. Y.	3,349,050
169.	Malden, Mass.	1,250,000
170.	Woonsocket, R. I.	1,292,000
171.	Newport News, Va.*	2,823,392
172.	St. Petersburg, Fla.	4,455,750
173.	Medford, Mass.	(Not reporting)
174.	New Castle, Pa.	2,470,000
175.	Davenport, Iowa	996,000
176.	Greensboro, N. C.	993,000
177.	Springfield, Mo.	614,500
178.	Stockton, Calif.*	1,312,000
179.	East Chicago, Ind.	1,281,000
180.	Columbia, S. C.*	1,202,000
181.	Galveston, Texas	1,073,000
182.	Madison, Wis.	1,916,000
183.	McKeesport, Pa.*	1,573,000
184.	Perth Amboy, N. J.	1,604,000
185.	Elmira, N. Y.	598,000
186.	Pittsfield, Mass.	483,000
	Group V	
	Population 30,000 to 50,000	
187.	York, Pa.	831,000
188.	Chelsea, Mass.	1,185,500
189.	Lima, Ohio	953,002
190.	Bay City, Mich.	1,930,000
191.	Haverhill, Mass.	343,000
192.	New Rochelle, N. Y.	4,495,676
193.	Lexington, Ky.	768,000
194.	Evanston, Ill.*	873,000
195.	Durham, N. C.	1,729,913
196.	Battle Creek, Mich.	749,836
197.	Aurora (East), Ill.*	586,000
	Aurora (West), Ill.*	475,000
198.	Muncie, Ind.*	1,163,000
199.	Columbus, Ga.	505,600
200.	Waco, Texas	1,410,500
201.	Muskegon, Mich.	1,965 000
202.	Jamestown, N. Y.	1,950,000
203.	Brookline, Mass.	736,600
204.	San Jose, Calif.*	1,219,000
205.	Chicopee, Mass.*	658,500
206.	Fitchburg, Mass.	463,000
207.	Austin, Texas	1,031,000
208.	Lorain, Ohio	1,525,725
209.	Pueblo, Colo.	1,394,000
210.	Hamilton, Ohio	1,094,639
211.	Williamsport, Pa.	1,370,000
212.	Stamford, Conn.*	3,361,500
213.	Butte, Mont.*	299,683
214.	Everett, Mass.	1,067,000
215.	Salem, Mass.	746,500
216.	Rock Island, Ill.	375,000
217.	Poughkeepsie, N. Y.	1,301,050
218.	Dubuque, Iowa	1,316,000
219.	Council Bluffs, Iowa*	840,000
220.	Phoenix, Ariz.*	1,030,000
221.	Joliet, Ill.	1,780,000
222.	Portsmouth, Ohio	1,726,100
223.	West New York, N. J.	2,626,500
224.	New Brunswick, N. J.	1,622,000
225.	Taunton, Mass.	794,000
226.	Kokomo, Ind.*	635,500
227.	Quincy, Ill.*	360 000
228.	Superior, Wis.	1,294,000
229.	East Cleveland, Ohio	3,682,000
230.	Wilmington, N. C.	(Not reporting)
231.	Ogden, Utah*	828,000
232.	Danville, Ill.	645,000
233.	Lynchburg, Va.[5]	1 046,602
234.	Easton, Pa.*	2,143,000
235.	Hazelton, Pa.	1,537 000
236.	Petersburg, Va.	800,000
237.	Cranston, R. I.	1,663,000
238.	Waterloo (East), Iowa	579,500
	Waterloo (West), Iowa	807,000
239.	Meriden, Conn.	990,000
240.	Waltham, Mass.*	1,054,000
241.	Lewiston, Me.	95,000
242.	Orange, N. J.	1,537,000
243.	Clifton, N. J.	1,833,400
244.	Amsterdam, N. Y.*	1,358,550
245.	Norristown, Pa.	(Not reporting)
246.	Warren, Ohio	2,290,901
247.	Green Bay, Wis.*	1,876,000
248.	Colorado Springs, Colo.	1,122,000
249.	Revere, Mass.	1,057,820
250.	Elgin, Ill.*	170,000
251.	Auburn, N. Y.	62,000

(Concluded on Page 107)



JAMES M. McNAMARA
Superintendent of Schools, Fitchburg, Mass.
(See Page 84)

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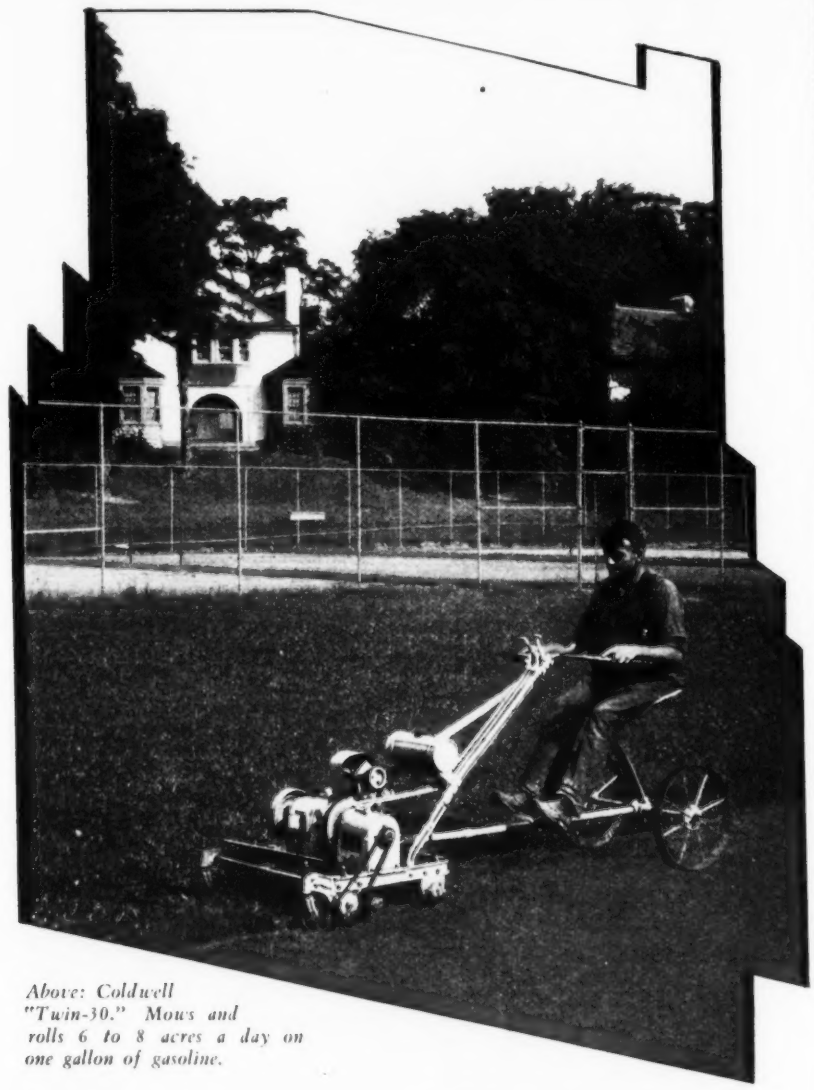

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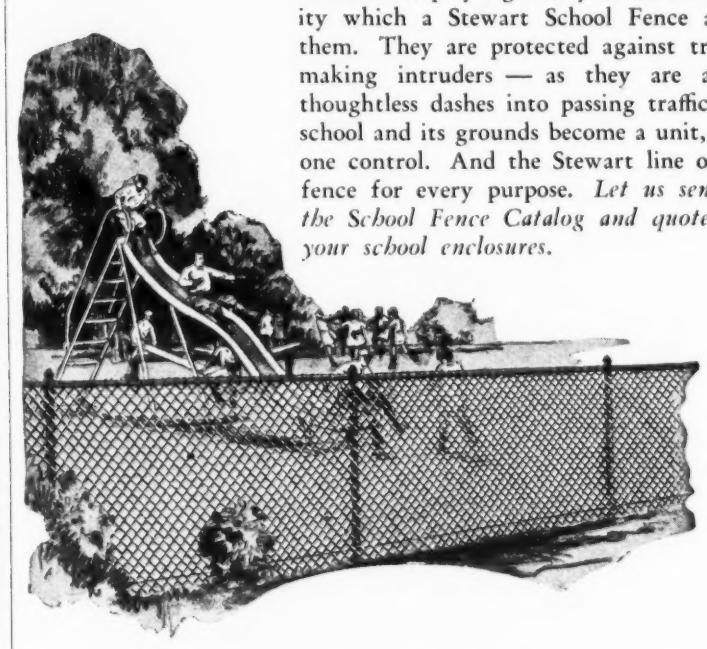

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(Concluded from Page 104)

252.	Moline, Ill.	151,000
253.	Sheboygan, Wis.	452,000
254.	Irvington, N. J.	2,314,150
255.	Anderson, Ind.	(Not reporting)
256.	Cumberland, Md.*	2,350,000
257.	Montclair, N. J.	4,994,500
258.	Watertown, N. Y.	1,175,500
259.	Marion, Ohio*	699,000
260.	Oshkosh, Wis.	515,000
261.	Muskogee, Okla.	1,005,000
262.	Port Arthur, Texas*	2,252,000
263.	Steubenville, Ohio	.....
264.	Mansfield, Ohio	1,312,103
265.	Plainfield, N. J.	1,802,000
266.	Alameda, Calif.	570,431
267.	Kearny, N. J.	2,128,500
268.	Fort Smith, Ark.*	994,000
269.	Asheville, N. C.	(Not reporting)
270.	Hagerstown, Md.	(Not reporting)
271.	Middletown, Ohio	1,117,000
272.	Sioux Falls, S. D.	1,382,000
273.	Rome, N. Y.	(Not reporting)
274.	Raleigh, N. C.*	2,298,000
275.	Richmond, Ind.	691,000
276.	Clarksburg, V. Va.*	138,000
277.	Great Falls, Mont.*	1,002,611
278.	Norwood, Ohio	1,117,500
279.	Port Huron, Mich.	687,000
280.	Bloomington, Ill.	80,000
281.	Newark, Ohio*	931,000
282.	Zanesville, Ohio	947,741
283.	La Crosse, Wis.*	240,000
284.	Newburgh, N. Y.	1,404,912
285.	Norwalk, Conn.	(Not reporting)
286.	Nashua, N. H.	726,500

NOTES: The cities arranged in order of population, according to the 1928 (July 1) estimates by the Bureau of the Census, with exceptions noted by that Bureau.

*Figures compiled by the AMERICAN SCHOOL BOARD JOURNAL, July 1, 1929.

[1]KANSAS CITY. School debt includes library, $250,000.

[2]PORTLAND. School bonds are 97.4 per cent of total as city's portion.

[3]MIAMI. School bonds of separate school districts of somewhat greater territory than city.

[4]CAMBRIDGE, PAWTUCKET. General debt includes schools.

[5]ALBANY, KNOXVILLE, LYNCHBURG. General sinking fund includes school sinking funds.

[6]SAN DIEGO. School bonds issued by county; sinking funds not segregated.

[7]TAMPA. Debt as of February 28, 1929; school bonds are for county school district, extending beyond city limits.

[8]LINCOLN. Utility bonds include light and power, $200,000; school debt is for separate district of larger territory than city.

[9]BERKELEY. School debt is city issue only, county school district and East Bay utility district not reported.

[10]READING. $213,990.77—Sinking fund, redemption, and interest.

[11]SAGINAW. $50,112.68—Sinking fund.

[12]BALTIMORE. $985,328.63—Sinking fund.

BUILDING NEWS OF THE SCHOOLS

SUPERVISION OF SCHOOL BUILDINGS IN FLORIDA

The supervision of school-building standards under the state board of education of Florida has recently been established under a new law regulating the construction of new buildings and the remodeling of old buildings for educational purposes.

Under the law, provision has been made for the appointment of a state director of school buildings and building standards, who will be nominated by the superintendent of public instruction, and who must be a licensed architect with special training in school architecture.

The director of buildings is authorized to prepare rules and regulations for the construction or remodeling of buildings used for public-school purposes, and he will advise with the school officials relative to new buildings and the remodeling of buildings in order that the best kind of service may be maintained.

All additional duties of the director of buildings must be prescribed and carried out under the supervision and control of the state board of education. Traveling expenses for the director are provided up to $600 per annum from state funds payable from funds in the state treasury.

BUILDING NEWS

—Shaker Heights, Ohio. The new Lomond elementary school, to be occupied in September, is part of a new ten-year school-building program which has been begun by the school board. The board has awarded a contract for the erection of a high school, at a cost of $1,000,000. The school district at present has accommodations for 7,000 students, or an increase of 4,000 over last year.

—Superior, Wis. The school board has been asked to change the name of the Central High School to the Calvin Coolidge High School.

—Kerrville, Tex. The citizens have voted a bond issue of $60,000 for new schools.

—Flint, Mich. The school board has begun construction work on the new McKinley School, to cost $346,000. The school is the first of a group of buildings.

—Rogers, Ark. The school board has sold a bond issue of $60,000 for 10½, with interest at 5½ per cent.

—Helena, Mont. The school board of Dist. No. 1 of Cascade county has disposed of a school-bond issue in the amount of $250,000. The bonds are part of a million-dollar bond issue for the erection of a high school at Great Falls.

—Janesville, Wis. Construction work has been started on three grade schools, to be erected under the new $375,000 building program.

—Palmerton, Pa. The school board has sold a $50,000 school-bond issue to a Philadelphia bonding house. The bidding attracted a large number of financial houses.

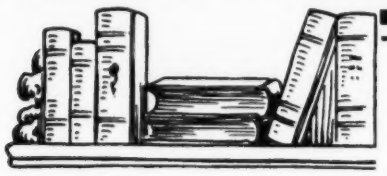
—Litchfield, Minn. By a majority of 51, the voters have approved the site of the old school as the location for a new structure, to be erected at a cost of $225,000.

—Calumet, Mich. The school board has sold a school-bond issue of $300,000 to two local banking houses, at an interest rate of four and three quarters per cent. The board has asked for bids and will start construction work immediately.

—The city board of estimate of New York City has voted to expend $20,000,000 during the summer recess to place under contract all of the new school buildings, plans for which have been completed. The new building program will provide 79,000 new school sites during the summer months. These will be distributed among 53 elementary schools, six high schools, two vocational schools, and one industrial training school.

—Bangor, Mich. The citizens have approved a bond issue in the amount of $85,000 for the erection of a new high-school unit adjoining the present building. Construction work on the new building will begin immediately.

—Kalamazoo, Mich. Bonds in the amount of $300,000 have been approved for the erection of a new grade school and the purchase of land for a playground.



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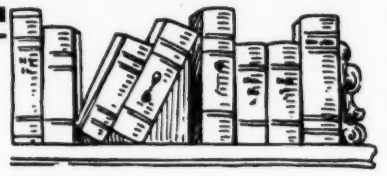

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—Salisbury, Md. Bonds in the amount of $300,000 have been passed for the erection of a new school building. Three additional buildings will be erected by direct taxation.

—Indianapolis, Ind. The school board has completed the plans for the 1930 school-building program. The program will include the erection of a new high school to cost $450,000, and a number of new grade schools.

—Ironwood, Mich. The school board will shortly complete its plans for the erection of a new school. The voters at a recent election, approved the razing of the old building and the floating of $150,000 in bonds for construction work.

—Alliance, Nebr. The school board is completing an addition to the Grandview School, at a cost of $35,000. The building is being erected from plans prepared by Mr. T. J. Allen of Scottsbluff, and is being financed from funds provided by the school district so that no bond issue was necessary.

—Beatrice, Nebr. The school board has obtained the first tax levy for paying off its indebtedness on a $400,000 bond issue. The bonds were voted five years ago for the purpose of erecting a junior high school and making improvements on the existing schools.

—The new Wheelock High School, at Canajoharie, N. Y., was recently dedicated with impressive ceremonies. Commissioner Frank P. Graves gave the principal address.

—An appropriation of $60,000 for a new school at Rocky Point, N. Y., was recently authorized by a vote of 51 to 3.

—A bond issue of $655,000 for new schools has been approved at Kenmore, N. Y. Of the total amount, $475,000 will be used for the erection of an elementary school, and $190,000 for an annex to the Lincoln School.

—The purchase of a site costing $8,000 and the erection of a school building costing $100,000 have been authorized at Toddville, N. Y.

—Bonds for $280,000 for the construction of an addition to the high school have been approved at Little Falls, N. Y.

—Bonds in the amount of $465,000 have been voted for school-building purposes at Penn Yan, N. Y. Of the total amount, $399,000 will be used for the erection of a high school, and the remainder will be used for the purchase of additional land and equipment.

—A total of 173 school districts in 40 counties of Arkansas have asked the state education department for loans totaling $849,000 for school-building purposes. State Superintendent Womack has requested that the amount of $849,000 be placed in the revolving fund to meet the estimated requirements of the school districts.

—Harper's Ferry, W. Va. The voters have approved a school-bond issue of $112,500 for a new school.

—Stockbridge, Mich. The voters have approved a bond issue of $100,000 for new schools.

—Watertown, Wis. By a vote of eleven to three, the city council has approved the school board's plan for a high-school addition, to cost $120,000.

—O'Brien, Tex. By a vote of three to one, the voters have approved a bond issue of $18,000 for school-building purposes.

—Crawford, Nebr. A school-bond issue of $125,000 has been passed by the voters for the erection of a high school.

—Angleton, Tex. The voters have approved a bond issue of $85,000 for the improvement of school buildings and for equipment.

—Jacksboro, Tex. A school-bond issue of $99,000 for the erection of a high school was recently carried by the voters.

—San Antonio, Tex. The school board has completed plans for the submission of two bond issues, aggregating $5,000,000, to the voters. The proceeds of the bonds will be used in providing relief from overcrowded conditions in the schools.

—The school board of Albany, Oreg., recently sold its school refunding bonds amounting to $50,000 to a local banking concern at par, and a premium of $235. The bonds bear five per cent interest and will be retired serially over a period of twenty years.

—Moberly, Mo. In addition to a bond issue of $490,000, recently voted for a school-building program, the school board has acquired $60,000 from insurance funds for the carrying out of the construction work. Among the buildings to be erected under the program are a high school, at a cost of $300,000; a junior-high-school building, at a cost of $85,000; a new West Park grade school, at a cost of $80,000; a new East Park grade school, at a cost of $40,000, and an addition to the North Park grade school, at a cost of $40,000.

—Yonkers, N. Y. The school authorities will expend $35,000 for a high-school building and is planning a school-building program calling for the expenditure of $9,000,000 during the next five years.

—Mt. Vernon, N. Y. Plans are being completed for a new school-building program to involve an expenditure of $2,950,000.

—Port Chester, N. Y. The school authorities plan the erection of a new high school during the year.

—Pelham Manor, N. Y. Plans have been completed for a new grade school, to be erected on a five-acre plot in 1929, as well as an addition to the present high school.

—Elmdale, Tex. School bonds in the amount of $12,000 have been voted by the taxpayers for school-building purposes.

—Alice, Tex. The voters have approved a bond issue of $125,000 for additional school buildings.

—Tyndall, S. Dak. A school-bond issue in the amount of $75,000 has been approved for a new high school.

—Little Rock, Ark. An extensive school-building program for negro schools has been undertaken by the local school system. The enlargement of the negro school facilities has been made possible through the appropriation of $30,000 by the general board of education. An appropriation of $300,000 made by the general board for negro school work will be distributed over a period of five years.

—The new Cotton School No. 100, at Cotton, St. Louis county, Minn., on July 4, was dedicated to the rural boys of the county who gave their lives for their country during the world war. A patriotic program was carried out, in which the members of the county board of education, former teachers of the school, and Supt. C. H. Barnes of Duluth, took part. Parents, relatives, and friends of the boys were present to witness the dedication.

A memorial tablet with the names of the soldiers will be installed in the lobby of the school, and a list of the gold star mothers of the community will be placed on a scroll and filed in the archives of the building.

—The school district of LeRoy, N. Y., on behalf of the school system, has accepted the gift of a library and endowment fund, given by the children of Orator and Cora M. Woodward in memory of their parents.

The library will be erected between the grammar and high schools and will serve the pupils as well as the adults of the community. In addition to providing funds for the building and its equipment, the donors have given $15,000 for the initial purchase of books.

(Concluded on Page 110)

THE REAL ECONOMY of LYON LOCKERS

becomes evident during vacation

Every year, during this period of reconditioning, school superintendents receive tangible evidence of the real economy of Lyon Lockers. Close inspection reveals little need for repairs—even on those Lyon Lockers installed years ago. . . . The reason is that Lyon Lockers are built to stand up under hard usage. The frames are strong. The reinforced doors are rigid. The double loop hinges are securely fastened to the doors and frames. The locking devices are practically everlasting and the special Lyon green baked enamel finish retains its attractive appearance indefinitely. . . . Write us about your new locker requirements. We will gladly send you full information on the structural qualities of Lyon Lockers that make them the economical lockers for school use, and give you the names of schools near you that are Lyon equipped. Write, too, about other equipment you may need—steel shelving, storage and wardrobe cabinets, basket racks, folding chairs.

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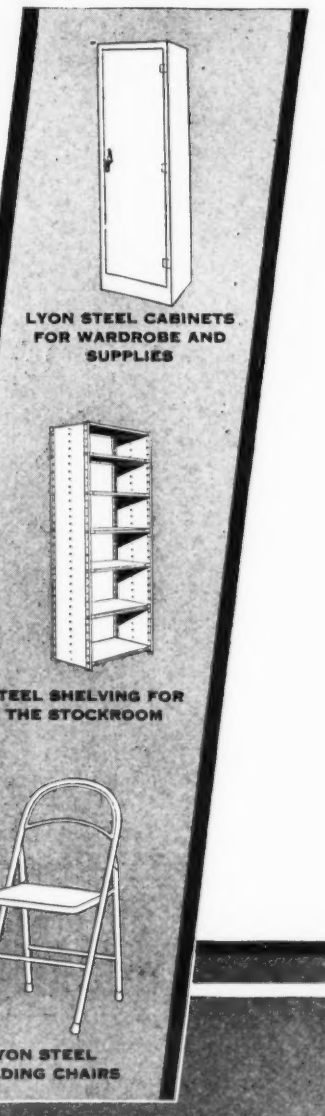

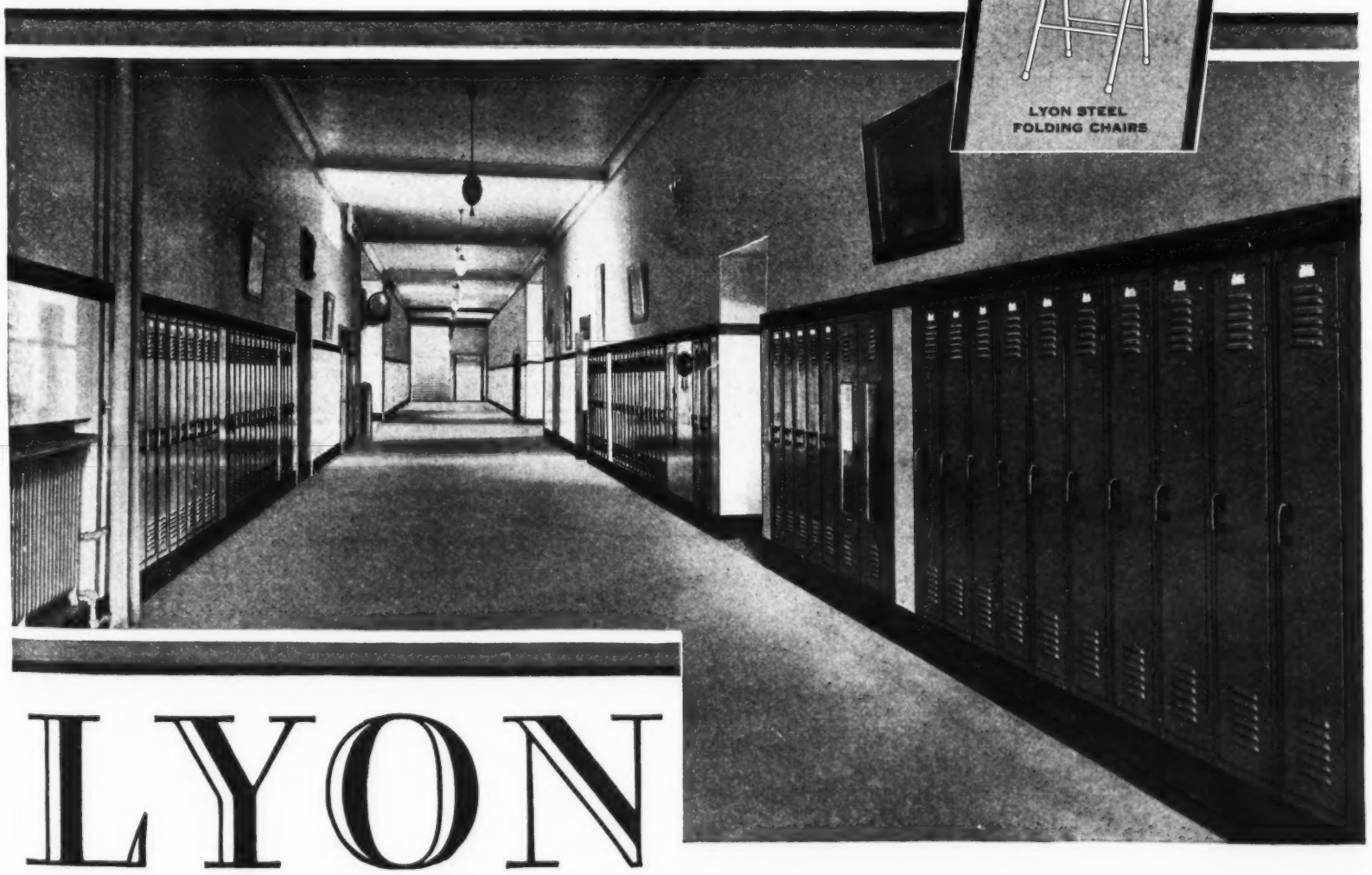

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We have been manufacturing school and laboratory furniture for a number of years and in April, 1928, we took over the Wiese Laboratory Furniture Company of Manitowoc, Wisconsin, whose reputation for the highest quality is universally known.

Our Factories

OUR school and laboratory furniture factory is located at Manitowoc, Wisconsin. This insures excellent shipping facilities over two railways and four steamship lines. Its location which is in the heart of the woodworking districts, affords us a plentiful supply of highly skilled cabinet makers, finishers and other artisans. Our plant is arranged and equipped with the most modern machinery necessary to manufacture laboratory furniture quickly and economically. Visitors are always welcome at the factory.

Our scientific apparatus factory is located in Chicago where we have ready access to an unlimited supply of raw materials and highly skilled mechanics. Each department is under the supervision of men with long experience in the manufacture of scientific apparatus. It is equipped with up-to-date machinery, essential in manufacturing scientific apparatus of the highest quality.

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TRAINED engineers and designers of many years' experience are available to contractors, architects and buyers, for consulting and advising services in reference to laboratory equipment without charge or obligation. This includes suggestive layout plans showing the various pieces of laboratory furniture, together with the roughing-in points for all plumbing, electricity, gas, etc., as required for the various equipment specified.

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General Office, Warehouse and Scientific Apparatus Factory
1516 ORLEANS ST., CHICAGO, U. S. A.

(Concluded from Page 108)

—Warwick, R. I. The school board has appointed a committee to distribute insurance amounting to more than $300,000 among certain local insurance agents of the city. The balance of the insurance, amounting to $650,000, was assigned to the Harold Holt Company which has supervised the insuring of the school property.

—Watertown, Wis. A bond issue of $120,000 has been approved for the erection of an addition to the high school.

—Milwaukee, Wis. The school board has employed an architectural structural engineer, at a salary of $7,500.

—Bids have been received for the enlargement of the Barnum School at Birmingham, Mich., bonds for which were voted at a special election in June. The estimated cost of the building is $385,000. Mr. F. D. Madison, of Royal Oak, is the architect.

—Navasota, Tex. Owing to the bond market conditions, the school district has not been able to sell $130,000 in school improvement bonds. The highest bid by any of the prospective buyers was 94 cents, which the school officials considered too low, and it was decided to hold the bonds until such a time as the market conditions improve.

—Laredo, Tex. By a vote of 403 to 3, the citizens recently approved a bond issue of $225,000 for school-building purposes. The new buildings will provide additional classroom accommodations for 1,500 pupils in the elementary grades and an auditorium seating capacity for 1,500 persons.

—Devine, Tex. An election will be held to vote bonds in the amount of $42,000 for school-building purposes.

—Seminola, Okla. By a vote of 226 to 6, the citizens have approved a proposition calling for the erection of a new high school.

—Santa Ana, Calif. By a vote of 3,459 to 1,194, the citizens have approved a school-bond issue of $465,000 for school-building purposes. The work of receiving bids and awarding contracts for the construction of new elementary schools and additions will be taken up as soon as the bonds have been sold.

—Brecksville, Ohio. The school board has taken action toward carrying out a $240,000 school-building program despite the opposition of about four fifths of the village taxpayers. Contracts have been awarded for a $200,000 addition to the Brecksville School on Highland Drive, and for a primary school on Wallings Road, to cost $41,000.

—East Moline, Ill. A school vote in favor of a $210,000 school-bond issue has been made valid through a law passed recently by the Illinois legislature. The bill provides that all school elections in Illinois prior to the passage of the bill must stand. Thus, the East Moline high school board of education is able to issue bonds to the extent of 5 per cent of its assessed valuation, instead of 2½ per cent, as provided by a recent state law. If the board has been held to the 2½ per cent limit, it could not have obtained sufficient money to carry out its improvement program.

—Kerrville, Tex. The school board has awarded contracts for a number of needed improvements following the approval of a $60,000 bond issue by the voters. Architects Adams & Adams, of San Antonio, have prepared plans for additional classrooms for elementary schools and for improvements to existing buildings.

—Burt, Iowa. The proposition to vote a school-bond issue of $35,000 for school-building purposes failed to carry at the election held on June 27. Apparently, the failure to carry the proposition was due to the fact that the bonding limit was only a little over $35,000, and it was felt that the building of the school would create a large financial burden for the school district. Despite the fact that the revenue from nonresident tuitions amounts to approximately $5,000 annually, and despite the pressing need for additional classroom space and gymnasium facilities, the sentiment was against the improvements at the present time.

—Laredo, Tex. By a vote of three to one, the citizens recently approved a school-bond issue of $225,000 for new schools and additions to several schools.

—Kalamazoo, Mich. On June 10, the voters approved a bond issue of $300,000 for school-building purposes. Of the total amount, $250,000 will be used for building and equipping new schools, and $50,000 for the purchase of additional property for school purposes.

—Ponca City, Okla. The school board has approved the purchase of sites for two additional grade schools. The buildings will be erected from the proceeds of the $260,000 bond issue approved by the voters last December.

—The school board of Montgomery county, Md., recently conducted a sale of the $336,000 bond issue, which is to be used for additions and improvements to the schools of the county.

—Construction work has been started on the $150,000 county school-building program for Klamath county, Oregon. The program includes a teacher's cottage to cost $7,000; a school-building project to be completed at Malin at a cost of $20,000; a four-room grade school at Henley at a cost of $16,000; and a six-room school at Weyerhaeuser to cost $27,000.

—Dearborn, Mich. The citizens have approved a bond issue of $150,000 for school-building purposes.

—Maywood, Ill. The residents of Maywood, Melrose Park, Bellwood, Forest Park, Hillside, and Berkeley recently voted on a bond issue of $450,000 for an addition to the Proviso Township High School.

—Belle Fourche, S. Dak. The voters at a recent election approved a bond issue of $115,000 for the erection of three additional units to the high-school building. Construction work on these buildings will begin about July 15.

—Dr. E. E. Lewis and Dr. T. C. Holy, of the Ohio University, have completed a survey of the school buildings at Troy, Ohio. Steps will be taken toward financing the building program some time next fall.

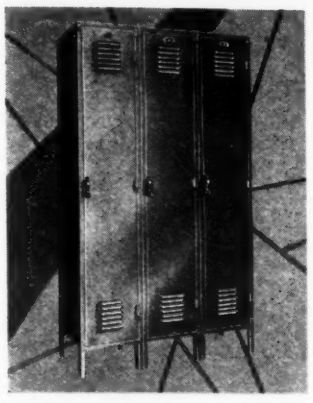
REPORTS LOW SCHOOL COSTS

—A recent report of Mr. W. D. Johnston, superintendent of the Butler district schools of Wurton, Hancock county, W. V., shows that the schools are among the most efficiently operated in the state. The per capita daily attendance cost for all the schools for the past term, according to Mr. Johnston, was $73, or $8.10 per pupil per month. The average for the elementary schools has been $56.60. The average for the seven largest cities of the state was $78.50, or about half more than the cost in the Butler district schools.

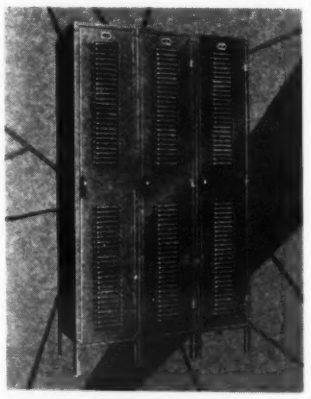
The valuation of the district school property is estimated at $731,280. Of the aggregate sum, the buildings are valued at $626,000; the furniture at $30,000; the apparatus at $17,000, and the libraries at $5,480.

The revenues from all sources during the year totaled $220,547, while the disbursements amounted to $229,071. The addition of a new school during the school term brought the total of school buildings to 25 in the district. Of these, ten are permanent, and fifteen are portable.

Have you determined the type of Locker for your Fall Increase?



Single-tier
standard louver



Single-tier
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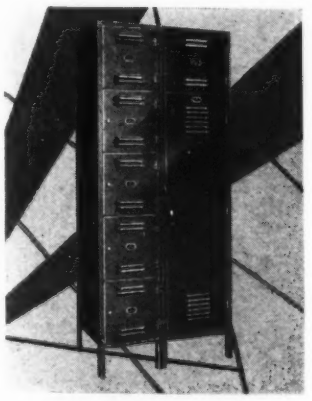

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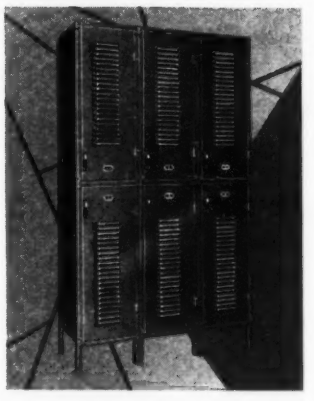
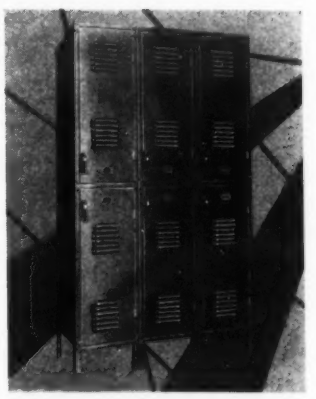
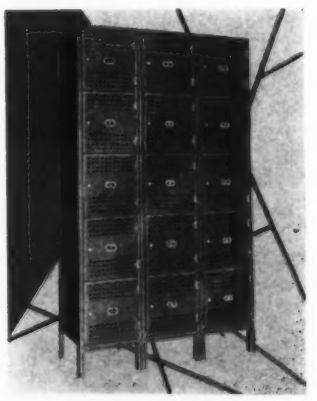


Double-tier
full louver



Double-tier
standard louver



Compartment
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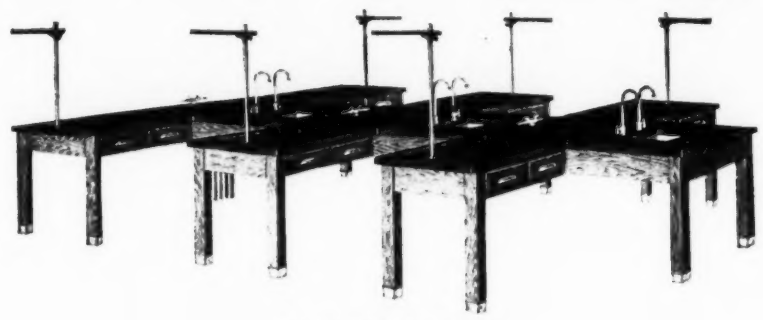
In New or Old Buildings



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—No definite periods need be set for demonstration and laboratory work.

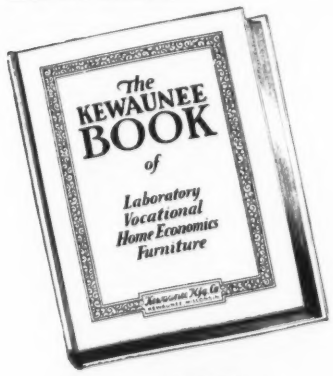
—Instructor can give a lecture, demonstration or discuss any difficult phase of the experimental work during laboratory period.

—Demonstrations can be stopped at any time and students permitted to follow out individual experiments.

—They can be used as regular classroom desks. This avoids an empty room in case your science classes do not cover the entire period of the school day.

Used In Many Well Known Schools

Lincoln Science Desks are saving space and giving better Laboratory facilities to many of the leading schools in the United States. They are used in the Lincoln School of Teachers College, New York City, University High School at Iowa City, University High School, Ann Arbor, Mich., and in other prominent schools, where highest educational standards are desired.



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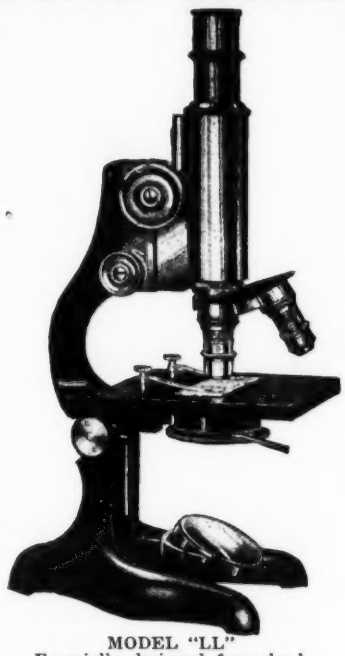
Leitz School Microscope
"Model LL"



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Especially designed for school, classroom, and laboratory use.

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Model "LL" is simple in design and most durable in construction, meeting to the fullest degree all the requirements for student classroom and laboratory use. Standardization and simplicity of construction in addition to quality and quantity production, as results from the increased demand for Leitz microscopes, has naturally brought about a material reduction in our prices. Although formerly higher in price, Leitz Microscopes now cost no more than other instruments whose quality cannot permit of comparison to the Leitz Model "LL."

The prices for the Microscope Model "LL," complete with 2 objectives and ocular, are as low as $60.80. Slightly higher prices follow consistent with the increased optical equipment as may be selected. To Educational Institutions we grant a special discount.

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No matter in what position the Law Chair is placed it can **never** come into contact with the table or desk. This not only prevents the scraping and marring of table edges, but results in materially reduced repair expense for both table and chair. **It keeps new school furniture new.**

Although the occupant of a Law Chair enjoys perfect freedom for work or study, the fact that the chair is definitely fixed in place results in a more orderly classroom. Then, too, the chair is absolutely noiseless in action and does away with the annoying scraping common to ordinary chairs or stools. In this way, the chair very materially **aids classroom discipline.**

The length of time required to sweep or mop a classroom floor depends upon the number of obstructions, such as desk and seat legs, which it is necessary to clean around. Common practice, where seats are movable, is to stack them on top of desks. The Law Chair eliminates this additional work, as a touch of the brush or mop sends it out of the janitor's way. Saving time means **reducing cleaning costs.**

The Law Non-Colliding Chair is a full sized, correct posture chair, carefully designed to promote health. Its comfortable saddle seat and correctly proportioned back discourages slovenly posture and encourages attentiveness. The Law Chair **provides correct seating.**

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2. **Keep School Furniture New**
3. **Aid Classroom Discipline**
4. **Reduce Cleaning Costs**
5. **Provide Correct Seating**

The Law Non-Colliding Chair is particularly suited for the following departments: Biology, Chemistry, Commercial, Domestic Art, Domestic Science, General Science and Physics. It is especially recommended for Teachers' use.

The B. L. Marble Chair Company
School Seating Division
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CHICAGO CORRESPONDENCE

"You'll be in hell pretty quick. This is the last notice." This message came to chief engineer John Howatt on Chicago school stationery and was signed "School Board Firemen." It was the third such threatening letter, and it aroused such apprehension on the part of school officials and the police department that a special police guard has been placed over the Howatt home. Mr. Howatt has served the board of education for many years as head of the engineering department.

The school firemen have demanded vacations with pay. Since the school board has been insistently demanding stringent economy measures, department heads are reluctant to advocate any increased expenditures. The chief engineer has opposed the proposed vacations with pay.

H. Wallace Caldwell, 34-year-old president of the Chicago board of education is not only a fighter, but he's a finisher! At the beginning of the year, seasoned political observers at the state capitol predicted that not a single school-board revenue bill would be reported out of committee during the meeting of the general assembly. There was considerable substance to support the predictions. Repeatedly the people of Chicago had been turning down bond issues and other referendums for obtaining more revenues. Likewise, most of the officeholders had been elected recently on platforms of economy and tax reduction. Eventually, however, two school-board measures emerged from committee and were passed in both houses. One of these bills raised the interest rate payable on school warrants from 5 to 6 per cent. The other raised the educational-fund tax rate sufficiently to bring in additional revenues during the next biennium of an estimated total of $40,000,000. During the legislative campaign, it was necessary for the president of the school board to break with the mayor's advisory committee consisting of influential civic leaders in Chicago. It is doubtful if other leaders in public life would have dared do that.

But the fight is still on! It is still necessary to borrow the money under the authority granted by the legislature, if the schools are to reopen in September. It is alleged that the local banks and their syndicate refused to loan the money, so the president of the board of education induced another syndicate, headed by a Chicago bank, but made up mainly of banks located in other cities, to loan $40,725,000 to the schools. This new syndicate stipulated certain things, among which were the following: The $40,725,000 should be deposited in a certain Chicago bank and that the president of the school board should attempt to get council approval on the transaction. The president went before the council seeking approval of the transaction. It was refused by a close vote. Some of the aldermen objected to the selection of the specified bank, and to other terms of the loan. In fact, they voted an inquiry of the banking situation in Chicago. Meanwhile, the syndicate waived its demand for council approval and the president of the school board contracted with the syndicate in spite of aldermanic disapproval.

There is still one hurdle to pass. The city comptroller is ex-officio school-board treasurer, and he threatens to refuse to sign the warrants under which the money has been loaned to the schools by the syndicate. The president of the board of education has in turn threatened to mandamus the comptroller according to newspaper accounts. Judging by his fighting record, it seems likely that the school-board president will win out again.

(Since the preceding paragraph was set in type, the comptroller has signed, and the warrants have been sold.)

H. WALLACE CALDWELL
President of the Board of Education, Chicago, Ill.

County School-Building Program at Snow Hill, Md.

—The voters of Worcester county, Md., have voted a bond issue for $300,000 to be applied to the erection of new school buildings. This is the fourth large bond issue in as many years and represents part of a definite campaign for replacing old school buildings with new structures suited to present-day needs and to present-day school program. The recent bond issue carried by a large majority.

The construction of new buildings is in the hands of a special building committee which has appointed Linthicum and Linthicum as architects. The new buildings will be erected as follows: Snow Hill, $76,000; Pocomoke City, $76,000; Berlin, $76,000; Bishopville, $20,000; Ocean City, $30,000; Whaleyville, $10,000; Newark, $10,000.

Mr. J. Richard Phillips, Jr., of Berlin, is chairman of the building commission, and Mr. A. C. Humphreys, county superintendent of schools, is secretary.

High Schools Grow in New York City

The steady growth of the high schools in New York City has been indicated in a recent report of Mr. Harold G. Campbell, associate superintendent of schools, recently presented to the budget committee of the school board. Mr. Campbell shows that the enrollment in high schools in September will reach 157,000. On May 31, the enrollment was 148,856, and it is anticipated that 169,000 will be registered by October, or an increase of 11,000.

On the basis of the estimated increase, Mr. Campbell shows that 363 teachers and thirty assistants will be needed, as well as three new principals for the new high schools. An estimated increase appropriation of more than $1,000,000 will be needed for additional high-school facilities. Last year's appropriation was $22,100,989.

—JOHN P. BUTLER, formerly vice-president of the board of education, has been elected president to succeed Prof. E. B. Skinner. H. C. SCHENK has been elected vice-president.

✓ CHECK THESE SHELDON FEATURES BEFORE YOU BUY LABORATORY FURNITURE

ONE OF 300 SHELDON TABLES

Mr. Board Member: Because you are interested in securing for the tax payers laboratory furniture that will reduce the **cost per year of use** to the minimum, you will be vitally interested in the five Sheldon features outlined below.

1. Sheldon tables are not designed by guess work. They are the result of experience gained in equipping over 18,000 schools over a period of more than thirty years. Drawers, cupboards, seats, and accessories are arranged for the greatest efficiency.
2. Sheldon furniture is built by craftsmen who have built thousands of laboratory tables and who know how to build furniture that will last down through the years.
3. Sheldon construction is stronger and more durable by actual competitive test.
4. The Sheldon Installation Department installs the furniture ready for use, subject to your approval, thus relieving you of worry and trouble. Fifty Sheldon Equipment Engineers throughout the country periodically inspect all installations in their respective territories.
5. Behind the Sheldon product is an organization with the largest factories in the industry specializing exclusively in the production of laboratory furniture.

E. H. SHELDON & CO., MUSKEGON, MICH.

LABORATORY FURNITURE SPECIALISTS FOR 30 YEARS

BUFFALO TEACHERS GET SALARY INCREASE

The public-school teachers of Buffalo, New York, will begin the new school year of 1929–1930 with an increase in their salaries. The new salary schedule which affects all public-school teachers was adopted by the Buffalo board of education and became effective on July 1, 1929.

The new minimum is $100 more than the minimum of the old schedule and the new maximum is $700 more than the old maximum. In both schedules the maximum is reached in 8 years. Under the old schedule the annual increments were $100, and under the new schedule the increment will be $175 annually.

By the provisions of the new salary schedule an elementary teacher starting as a new entrant begins at the $1,300 minimum and will reach the $2,700 maximum in 8 years by means of the $175 annual increment. Under the old schedule the elementary teacher began at $1,200 and reached a maximum of $2,000 in the 8 years.

All present teachers who already are at the maximum of the old schedule will reach the new maximum of $700 more in 4 years by means of the $175 annually.

The following salaries apply to the major groups:

Classification	Minimum Salary	Maximum Salary
Kindergarten Teachers	$1,300	$2,700
Teachers of Grades 1 to 7 (inclusive)	1,300	2,700
Teachers of Grade 8	1,350	2,750
Assistant Teachers of Domestic Art, Domestic Science, Drawing, Elementary Hand Work, Music, Physical Training	1,500	2,900
Manual-Training, Physical-Education Vocational Teachers	1,900	3,300
Vocational Teachers in Central Continuation School	1,900	3,300
Manual-Training Teachers in Central Continuation School	1,900	3,300
High-School Classroom Teachers in Central Continuation School	1,700	3,100
Domestic-Art Teachers, Domestic-Science Teachers in Central Continuation School	1,500	2,900
Teachers of Vocational Commercial Subjects in Central Continuation School	1,700	3,100
High-School Teachers—Classroom	1,700	3,100
High-School Teachers—Grade I—Study room	2,000	3,400
High-School Teachers—Grade II—Study room	1,900	3,300
High-School Teachers—Grade III—Study room	1,800	3,200
High-School Teachers—Special Assistant	2,000	3,400
High-School Teachers—Department Heads	2,400	3,800

This increase in the teachers' salaries in Buffalo was due in a large measure to a salary campaign started by the Buffalo Federation of Educational Associations more than two years ago.

The Federation appointed a committee which made a survey of the local situation and carried on a general campaign of education and propaganda. In the final, effective stages of the work the committee had the cooperation of Supt. E. C. Hartwell of the board of education and of Mayor F. X. Schwab.

MR. KILLIUS ELECTED

Mr. James Killius, for the past three years principal of the Johnstown high school, has been elected superintendent of schools at Johnstown, Pa., to succeed the late Dr. S. J. Slawson. The board of education has fixed the salary for the office at $6,500.

Superintendent Killius was born in Coal Center, Pa., November 4, 1889, and was graduated from the Southwestern State Normal school at California, Pa., in 1905. He holds the bachelor's and master's degrees in education from the University of Pittsburgh and Pennsylvania State College respectively. He has been engaged in educational administration at Allenport and Monessen, Pa., and was for a year and one half in charge of the continuation school at McKeesport, Pa. In 1917 he was appointed director of vocational education in Johnstown, and three years ago was made principal of the high school. Superintendent Killius has contributed, on numerous occasions, to educational magazines and is co-author of a widely used arithmetic.

MR. JAMES KILLIUS
Superintendent of Schools-Elect, Johnstown, Pa.

LITTLE ROCK SCHOOLS RECEIVE EDUCATION FOUNDATION

The Junior College of the Little Rock, Ark., school system has received, through the generosity of one of Arkansas' distinguished men, the biggest foundation of any school system in the South, it was announced on July 6, by the Little Rock school board. The value of the property that has been deeded outright to a Board of Trustees is between $1,500,000 and $2,000,000. The donors are former Gov. George W. Donaghey and Mrs. Donaghey, and the property turned over to the board is a five-story bank and office building, and the fourteen-story Donaghey office building.

These buildings yield profitable rentals.

Former Governor Donaghey and Mrs. Donaghey have no children, and long have contemplated a bequest that will inure to the benefit of posterity in their own city. Even when he began construction of the fourteen-story office building five years ago, the former governor had in mind its bestowal eventually in the cause of education, and in gratitude for the honors that have been bestowed on him and Mrs. Donaghey by the people of Arkansas.

The trust is to be known as the "George W. Donaghey Foundation," and the trustees are given sole management, and all net profits shall accrue to the college. The grantor will continue to have management of the property during his lifetime, and provision is made for his compensation as manager.

After 50 years the trustees may sell the property, if they wish, and erect permanent buildings devoted to the objects and purposes of the trust. If the college should at any time cease to be operated, the trustees have authority to select some other public school operated by the special school district of Little Rock.

(Concluded on Page 116)

Real Natural

GAS

for Your School

Without Gas Mains or Generating Equipment

Now your instructors and students may enjoy the many advantages brought by real natural gas in your laboratories. Real natural gas is available for use in schools where there are no city gas mains. Small town and rural schools and colleges may now use gas.

Use Gas in All Science Laboratories

Gas—Nature's Perfect Fuel——is required to carry out many experiments in the physics and chemistry laboratories. Now your school may have gas.

Modern domestic science laboratories teach cooking with gas because gas is the ideal fuel—odorless, fast cooking, clean, intensely hot, easily regulated.

Schools and colleges in small towns and in rural communities have been denied the use of this perfect fuel because heretofore gas has been available only in large towns and cities. But now gas may be used without gas mains; without intricate generating equipment. Real natural gas is available, purified and compressed in seamless steel cylinders. Easily installed and operated, moderate in installation and operation cost, your school may enjoy the hitherto exclusively city convenience and advantage—real natural gas—through SKELGAS.

SKELGAS

The COMPRESSED SKELLY NATURAL GAS

Real natural gas is purified to remove odorous, soot-forming and low heat-producing gases. Only the very heart of natural gas is retained. This purified gas—SKELGAS—is compressed in safe seamless steel cylinders to aid in transportation. SKELGAS—real natural gas, purified and compressed—brings the conveniences and advantages of gas for laboratory use to schools and colleges far removed from city gas mains.

SKELGAS is a tried and proved product. It is used for cooking purposes in thousands of home kitchens. Many schools and colleges have modernized their physics, chemistry and domestic science laboratories with SKELGAS.

With SKELGAS you have no elaborate equipment to install or operate. Two cylinders of SKELGAS are housed in a durable and attractive baked enamel steel cabinet outside the school. Gas is piped through standard gas pipe to the laboratories. Gas is used from one cylinder at a time. When the first cylinder is emptied, an easily turning lever brings the second cylinder into the supply line. Gas—SKELGAS——is always available at constant pressure.

SKELGAS flows to the burner under six ounce pressure, lights instantly and burns completely. No wicks or generators; no ashes, soot or dirt; no odor—clean and intensely hot-burning gas!

Investigate SKELGAS now so your installation may be made before the new school year. Write today for full information. Use the convenient coupon.

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Branch Offices: Kansas City — Tulsa — Minneapolis — Des Moines — Omaha — Chicago

Skelgas Utility Division,
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Gentlemen:

Please send me full information regarding SKELGAS for use in schools as described in your advertisement in the August issue of the American School Board Journal.

Very truly yours,

Name of School:..... .....

Town:..... State:..... .....
Position

MAIL THIS COUPON TO-DAY!

KIMBALL-CHICAGO

Established 1857

Laboratory and Vocational Furniture

Students Double Chemistry Laboratory Desk

No. 590—12′ long—with wood top—without lock
No. 591—12′ long—with wood top—with locks
No. 592—with stone top—without locks
No. 593—with stone top—with locks

Accommodating 32 students 8 working at one time.
This desk is very popular where space is an object.

W. W. KIMBALL COMPANY

Division of Laboratory and Vocational Furniture

A. E. Kaltenbrun
Director of Sales
810 Kimball Bldg., Chicago.

Eastern Distributors
Superior Seating Co.
105 W. 40th Street, New York.

(Concluded from Page 114)

Former Governor Donaghey's generosity in the cause of education perhaps is due to his own early struggles. He was born in Union parish, Louisiana, on July 1, 1856, but his parents moved to Union county, Arkansas, when he was a child. At 23 he moved to Conway and became a carpenter, and from that beginning forged his way upward as a self-made man.

He took up contracting and his work gave such satisfaction that he was awarded the contract for building Hendrix College at Conway. Later he built many public buildings in Arkansas, Oklahoma, and Texas.

ROCHESTER REARRANGES EXECUTIVE OFFICES

To keep the executive staff of the Rochester, N. Y., school system in step with the growth and general expansion of the school problem, the board of education has created a new executive office and has adjusted the duties and salaries of existing offices.

The new office just created is that of associate superintendent, to which Mr. Jos. P. O'Hern, assistant superintendent has been appointed with a salary of $7,500. To the office of assistant superintendent, vacated by Mr. O'Hern, Mr. Harold E. Ackerly has been appointed. He will have charge of finance and business administration and will receive $6,500. The board has also created the office of architect and deputy superintendent of buildings and has advanced Mr. Francis R. Scherer, assistant superintendent of buildings to this new place, at $6,200. Mr. B. M. Wilson will fill the office of assistant superintendent of school building with a salary of $4,000.

The board has modified the duties and advanced the salaries of the following officers: A. Laura McGregor, records and research, $4,600; John M. Tracy, superintendent of buildings, $6,500; Jos. F. Barker, assistant superintendent, $6,500; R. C. Keople, attendance, $4,800; R. H. Cutterson, teacher employment, $4,800; Chas. E. Finch, junior high schools and adult education, $5,250; Mabel E. Simpson, elementary grades, $5,100.

SCHOOL ADMINISTRATION

—Cliffside Park., N. J. The school board has approved a reorganization plan, calling for an addition to the present school staff, two subprincipals, head of super-instructors for all departments, and a clerk for office work. The plan provides for direct control in each branch of school instruction.

—Pittsburgh, Pa. The school board has adopted a new system of school hours for the city high schools. The new plan which becomes effective in September, will reduce by forty minutes the regular school time for students doing satisfactory work. The plan calls for the same working hours for teachers as formerly, but requires that students doing unsatisfactory work must remain in school for extra work. Approximately five minutes will be taken from each of the eight regular high-school class periods, in order to allow regular classes to close forty minutes earlier than formerly.

—Upon the order of Supt. W. J. O'Shea of New York City, placards have been posted on the outside of all school buildings, appealing to the school children to refrain from damaging school property during the summer months. Similar appeals in former years had resulted in a great reduction of broken windows and a great saving in the cost of repairs to school property, so that it was decided to repeat the appeal.

—More public-school children are entering the high school each year, and more are remaining to complete the four-year course, according to a report of the U. S. Bureau of Education. Basing its estimate on school statistics for 1926, the Bureau states that of every 1,000 children entering the schools, 720 reach the eighth grade, 605 enter the high school, and 247 are graduated. In 1918, only 342 reached the high school, and only 139 were graduated.

—The school board of Knopolis, Kans., has completed improvements on the school plant which has entirely modernized three buildings and made it more economical to operate. The work was financed through the sale of the outbuildings and other operating economies, which gave the necessary funds for accomplishing the work. In the grade-school building, the work included the installation of plumbing, electric lights, and painting.

—Pasadena, Calif. The school authorities have appointed a special committee to study and adopt a physical-education uniform for girls which will be required for the school year 1929-30. The uniform selected is a two-piece practical suit made up of black bloomers and white shirt-waist blouse without sleeves. Under the rules, those students who have uniforms, will be expected to wear them out before purchasing new ones.

—New York, N. Y. Reduction of the size of classes as the first step toward improving the educational facilities offered to foreign-born students attending the city's evening elementary classes has been urged by Mr. Arthur S. Somers, chairman of the board of education, by the evening-school committee of the council on adult education. The committee asked for a reduction in size from thirty pupils to twenty-five.

—Rochester, Mich. The school board has adopted a rule, prohibiting children from selling goods within the village or school. It appears that the citizens have been bothered by constant requests of school children to purchase goods.

—Supt. William J. O'Shea of New York City has recently issued some suggestions regarding homework for pupils of the city schools. In a circular letter to principals, Superintendent O'Shea after summarizing the value of homework, makes a number of recommendations, in which he eliminates homework for the first three years of the elementary-school course. In the fourth year, he recommends home study not exceeding thirty minutes a day; in the fifth and sixth years, not more than one hour a day, and in the seventh and eight years, not more than one and one-half hours per day.

Superintendent O'Shea asks for the cooperation of the parents in forming right habits of study in the child and stresses the necessity of clear and definite home assignments. Homework should be checked by the teacher and should never be assigned as punishment. Undesirable assignments, involving unnecessary or useless repetition of work, are discouraged.

—President Herbert Hoover has placed his personal stamp of disapproval upon any program by which the Federal government will foster a prohibition propaganda campaign in the public schools of the country.

The action of the President resulted in a hurried summons for the head of the educational division of the prohibition unit, under whose direction the pamphlet had been prepared and printed by the government printing office. Later Commissioner Doran ordered the pamphlet withdrawn from circulation and accounted that all copies would be kept under lock until the matter could be adjusted. It was explained that the head of the educational division had no authority to issue the pamphlet without the approval of the departmental head.

—Tacoma, Wash. Approximately $20,000 has been cut from the school district's bill for school supplies, with the award of contracts for the next year. The total amount of the purchases was $61,-668, as compared to the usual expenditure of $80,-000. A shortage of funds had made it necessary for the school board to purchase only the essential supplies.

40 feet a second!

and a solid equalized spray—

Our engineers can tell you *why* the Champion arrangement of two sets of sprays—(one above the line of dishes and one directly below)—permits the use of solid and direct sheets of water sprayed through the dishes at a speed of 40 feet a second. They can tell you *how* they have scientifically equalized this force and pressure so that even the most fragile china is unharmed by this cutting spray.

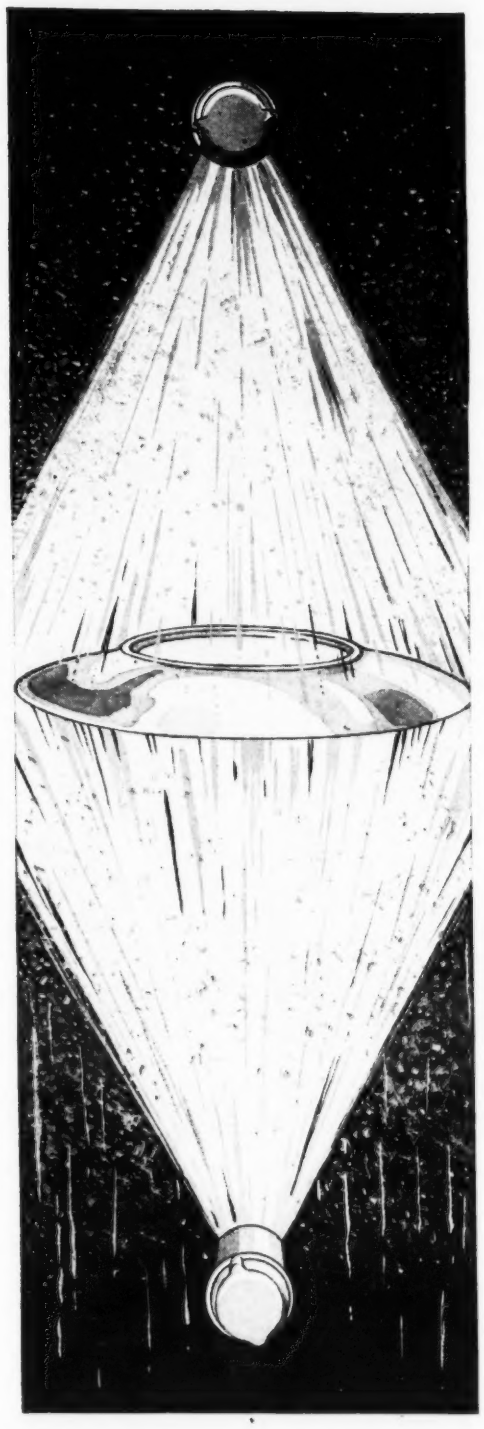
In the terms of actual results this simply means—a more rapid and thorough effectiveness in washing dishes. When you buy a machine investigate its units.

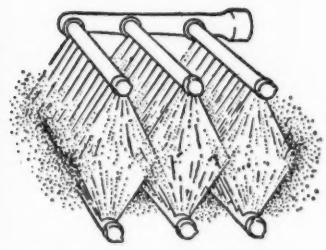
We know its unique form of pump is a mechanical masterpiece.

We know that its husky tank—made in one piece of galvanized cast iron—will last a lifetime.

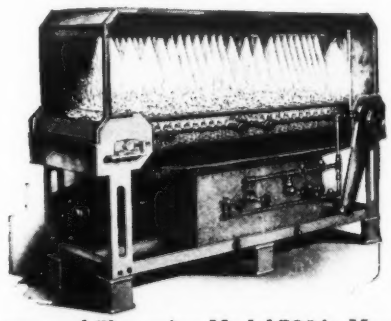
We know that the reason for Champion supremacy is the sound engineering principles of its construction.

We know that the reason for Champion popularity is its efficiency.





The above illustration shows a complete installation of sprays.



Improved Champion Model 700 in Monel Metal. Front removed to show simplicity of spray action and conveyor.

CHAMPION DISH WASHING MACHINE CO.

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Chicago office at

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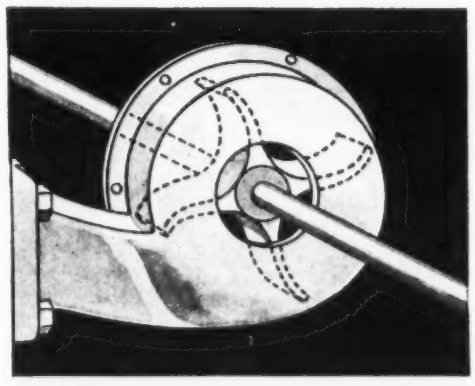

Impeller blades and shaft are a single unit—operating freely—no bearings inside of tank—nothing to get out of order—nothing to wear out.

Can a mop get floors Clean?

DID you ever look on at a floor mopping operation? After the first few strokes of the mop, the water in the pail is black—filthy, in fact. Yet the laborer continues, swishing dirtier and dirtier water onto the floor, until, when the task is done, he has simply succeeded in distributing the dirt more evenly than it was before.

Such methods of floor cleaning are not worthy of a school where cleanliness in every form is of paramount importance. School floors must be immaculately, scrupulously clean—a cleanliness such as the FINNELL SYSTEM achieves.

The FINNELL supplies clean water for every square inch of floor space. Out of crevices and depressions, as well as off the surface, come dirt and accumulations that hand methods have failed to remove! Beauty, hidden under grime and grease, shines forth again!

Waxes and Polishes Also

Not only does the FINNELL scrub, but it also does an equally good job of waxing and polishing. Whether your floors are wood, linoleum, tile, rubber, composition, terrazzo, etc.—the FINNELL SYSTEM can keep them immaculate, sanitary and better preserved at less cost than out-of-date, inefficient hand methods.

A FINNELL for your needs

There are eight models—a right size FINNELL for every school. Have a FINNELL Engineer make a survey and recommend the size best suited to your needs. Write today. FINNELL SYSTEM, INC., 808 East Street, Elkhart, Indiana. District offices in principal cities.

IT WAXES
IT POLISHES
IT SCRUBS

8 sizes—
priced from
$87.50 up

FINNELL
ELECTRIC FLOOR MACHINE

You Still Have Time

With the opening of school once more approaching, problems of sanitation and child health present themselves. In many cities, building capacities will be taxed and, particularly in older buildings, toilet facilities must be made both adequate and modern.

There is still time to rehabilitate those old toilet rooms which are out of date. With WEISTEEL partitions, due to exclusive features of design and construction, this part of the work can be easily and economically completed in a minimum of time. The result will be brighter, cleaner, and more sanitary toilet rooms.

WEISTEEL has been the choice of thousands of school officials and hundreds of architects. Substantially designed and built, these partitions will withstand the severe use, the carelessness and thoughtlessness, of school children. And they are easy to keep clean.

May we send you full details? There will be no obligation. HENRY WEIS MFG. CO., INC., Elkhart, Indiana.

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Mail This Coupon Today

HENRY WEIS MFG. CO., INC.,
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Gentlemen:
Please send me complete information concerning Weisteel Sanitary Toilet compartment equipment.

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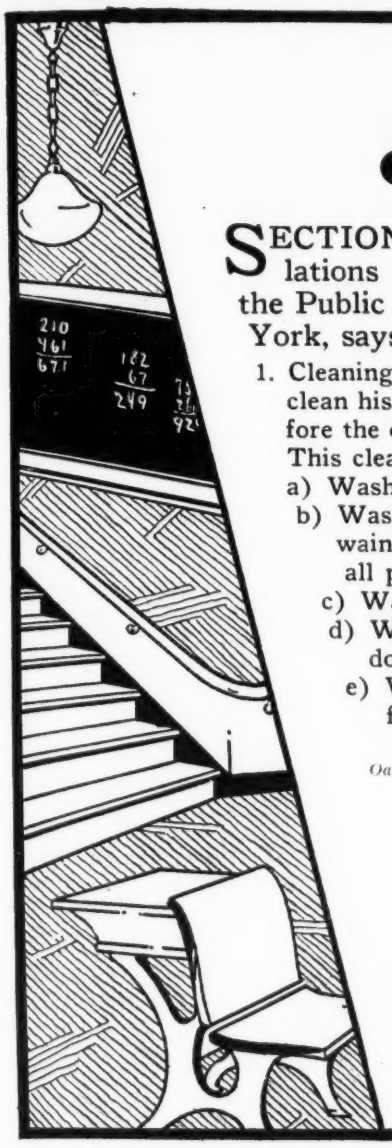

Makes easy work of pre-opening cleaning

SECTION K of the Rules and Regulations for the Custodial Force in the Public Schools of the City of New York, says in part:

1. Cleaning—the custodian shall thoroughly clean his school building immediately before the opening of schools in September. This cleaning shall include:
   a) Washing of walls
   b) Washing of dadoes, baseboards, wainscoting, doors, frames, sashes and all painted and varnished woodwork
   c) Washing of furniture
   d) Washing of windows, transoms, doors of book closets
   e) Wiping of picture molding, and fronts and backs of pictures
   f) Scrubbing of floors, entries, halls, stairways, corridors, and rooms occupied for school purposes.

Oakite, the all-purpose material, makes light work of every one of these cleaning jobs. Its remarkable emulsifying action supplants much of the rubbing and scrubbing necessary with less effective materials. Oakite does most of the hard work *itself*.

Let us send you a practical booklet full of suggestions for doing all your pre-opening cleaning more quickly and with less work. Ask for "Oakite in Schools"—it is yours on request. No obligation.

Oakite Service Men, cleaning specialists, are located in leading industrial centers of U. S. and Canada

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OAKITE

TRADE MARK REG. U.S. PAT. OFF.

Industrial Cleaning Materials and Methods

THE DUTIES OF PUBLIC-SCHOOL ADMINISTRATORS—ARTICLE VI

(Continued from Page 53)

duties were judged to be of average or of little importance. Two purely clerical duties, *Fill in pupil report cards* and *Fill in health records*, were judged to be of no administrative importance. Despite the generally low value of the duties, they were performed on the average by one half of the administrators.

5. The Discipline of Pupils

Finally, in the treatment of the administrative duties which pertain specially to the accounting and management of pupils, we come to the topic of discipline. Although the conception of discipline has changed materially with the passing of years, the problem of school discipline still continues to beset public-school administrators, and no small share of their personal time is consumed by disciplinary duties. The discipline of a school depends upon all of the factors which enter into the school organization, but there are 22 special duties which cover the field of activity displayed directly by public-school administrators. These 22 duties are exhibited in Table XXXI, which is arranged according to the same pattern as the preceding tables.

The duties pertaining to the discipline of pupils which appear in Table XXXI exhibit the same peculiarity which has characterized most of the accounting and management duties; that is, they are performed as commonly by principals as by the superintendents. In fact, in this case, as may be seen by the summary figures at the bottom of Table XXXI, they are performed more commonly by the principals. The three leading duties, *Interview pupils referred by teachers*, *Investigate disciplinary cases*, and *Adjust pupils' grievances and complaints*, all have to do with individual breaches of discipline. So do many of the others. On the other hand, it is evident that it is a common practice to prevent

TABLE XXX. ADMINISTRATIVE DUTIES PERTAINING TO THE REPORTS AND RECORDS OF PUPILS

(Frequencies are d for daily, w for weekly, m for monthly, y for yearly, y^2 for two times a year, etc. Values are 1 for primary, 2 for averages, 3 for minor, and 0 for no importance.)

DUTY	Percentage of Administrators Performing: Supt.	Prin Gen.	Prin H. S.	Prin E. S.	Median Frequency Supt.	Median Value
1. Examine teacher's marks	84	91	80	76	y^6	1*
2. Make attendance report	72	82	70	81	m	1*
3. Make transcripts of credits to leaving pupils	71	81	79	39	y^4	3
4. Establish uniform marking system	68	60	57	37	y	1*
5. Assign credits to entering pupils	59	74	67	12	y^2	2
6. Make promotion report	54	68	48	73	y	2
7. Fill in permanent individual record cards	51	74	66	54	y^2	3
8. Construct new type of pupil report card	50	39	35	15	y	2
9. Construct summary table of marks given	49	42	43	32	y^2	1*
10. Sign pupil report cards	47	85	57	72	y	3
11. Fill in pupil report cards	42	82	60	68	m	0*
12. Assemble and file pupil report cards	41	80	66	59	m	3
13. Send pupil report cards to parents	39	82	67	72	m	3
14. See that cards are signed by parents	39	86	72	76	m	3
15. Compute comparative school records of graduates	37	48	38	12	y	2*
16. Make retardation report	36	25	27	46	y	2
17. Fill in transfer cards	35	46	44	65	y^6	3
18. Make health report	33	35	22	46	y^2	1
19. Keep transfer record	30	43	34	49	y	2
20. Make pre-classification report	22	12	22	27	y	2
21. Fill in pupil health records	21	25	21	54	y	0
22. Make report on employed children	13	11	6	7	y^2	2
Average	**45**	**58**	**49**	**49**		

*More than one half of the judges assigned this value.

TABLE XXXI. ADMINISTRATIVE DUTIES PERTAINING TO THE DISCIPLINE OF PUPILS

(Frequencies are d for daily, w for weekly, m for monthly, y for yearly, y^2 for two times a year, etc. Values are 1 for primary, 2 for averages, 3 for minor, and 0 for no importance.)

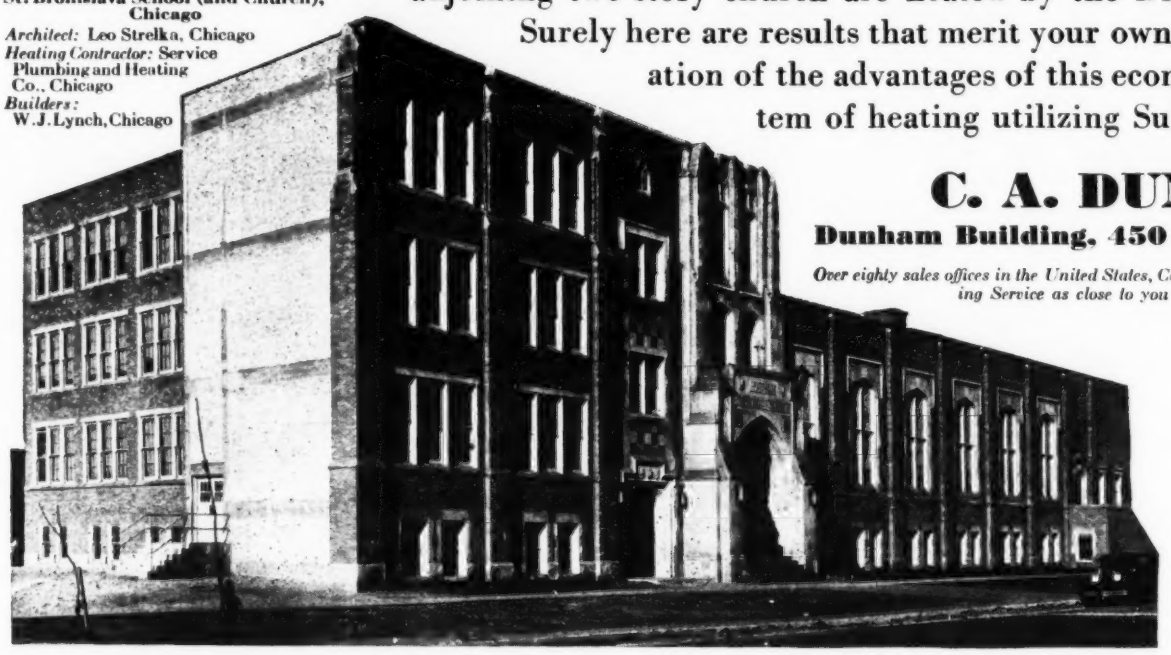
DUTY	Percentage of Administrators Performing: Supt.	Gen. Prin	H. S. Prin	E. S. Prin	Median Frequency Supt.	Median Value
1. Interview pupils referred by teachers	89	96	95	83	m	1*
2. Investigate disciplinary cases	86	96	89	85	m	2
3. Adjust pupil's grievances and complaints	86	93	94	83	m	2
4. Instruct teachers in disciplinary procedure	81	82	95	72	y^2	1*
5. Adjust difference between teachers and pupil	69	83	88	68	y^3	1
6. Decide disciplinary penalties	66	68	73	71	m	2
7. Interview pupil regarding outside disturbance	62	71	64	68	y^3	2
8. Organize hall discipline	62	72	63	73	y	2
9. Organize playground discipline	61	71	43	88	y	2
10. Prevent smoking on school premises	60	66	72	41	y^2	2
11. Direct general conduct of children on way to and from school	53	63	41	76	y^2	2
12. Suspend pupil	50	46	58	22	y^2	1*
13. Administer corporal punishment	50	55	35	68	y^3	3*
14. Maintain order in assembly	46	75	70	46	m	2
15. Adjust class scrap	29	26	28	29	y	3
16. Organize gymnasium discipline	28	42	32	29	y	3
17. Take care of interfering outsider	28	35	45	37	y	1*
18. Record cases of punishment	21	29	26	44	m	2
19. Give publicity to traffic laws	21	27	26	43	y^2	2
20. Organize system of student self-government	19	17	30	37	y	2
21. Expel pupil	18	9	21	10	y	1*
22. Appear in juvenile court with delinquent child	15	8	17	12	y	2
Average	**50**	**56**	**55**	**54**		

*More than one half of the judges assigned this value.

St. Bronislava School (and Church) finds the Dunham Differential Vacuum Heating System offers marked fuel economies

FACTS and figures covering the operation of the Dunham Differential Vacuum Heating System in St. Bronislava School (and Church), Chicago, show that during the past heating season the building was heated with a fuel consumption of but 28.887 pounds of coal per square foot of radiation for the period of 243 days. The total coal consumption was only 115 tons—a remarkable showing for a building of this size with a cubage of 805,400 feet and 7,962 sq. ft. of direct radiation. The School contains 20 classrooms, and both the school and the adjoining two-story church are heated by the Differential System . . . Surely here are results that merit your own very careful consideration of the advantages of this economical, adaptable system of heating utilizing Sub-Atmospheric Steam.

St. Bronislava School (and Church), Chicago
Architect: Leo Strelka, Chicago
Heating Contractor: Service Plumbing and Heating Co., Chicago
Builders: W. J. Lynch, Chicago



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The Dunham Differential Vacuum Heating System and individual parts of the apparatus used in that system are fully protected by United States Patents Nos. 1,644,114 and 1,706,401, and Canadian Patents Nos. 282,193, 282,194 and 282,195. Additional patents in the United States, Canada and foreign countries are now pending.

disciplinary difficulties by the preliminary organization of hall, playground, and gymnasium discipline.

Owing to the widespread participation by all administrative officers in disciplinary duties, there are few significant differences among the several types represented. The high-school principals, as a group, have less to do than the others with organizing playground discipline, directing conduct to and from school, and administering corporal punishment, while the elementary principals have less to do with preventing smoking, suspending pupils, and expelling pupils. In light of the heavy flow of literature, partly sentimental, against the evil effects of corporal punishment, the various groups of administrators are apparently still holding out in large numbers for the beneficial effects of corporal punishment. The judges, however, rated this duty as being of minor administrative value.

The administrative duties associated with discipline were, for the most part, rated by the 50 judges as being of average administrative importance. The most important disciplinary activities are considered to be those which have to do with interviewing and penalizing pupils. Two duties, namely, *Record cases of punishment* and *Organized system of student self-government*, which have been reported on favorably by various writers, were both rated as being of average importance and outside of the elementary principals were performed by comparatively few administrators. The disciplinary duties of superintendents and principals are all upon a monthly or yearly basis, the same duty ordinarily coming up two or three times a year. The data show that the practice of suspending pupils (Duty 12) is still fairly prevalent, but that the practice of expelling pupils (Duty 21) is now held in relatively low favor.

A STUDY OF SCHOOL DESKS AND SEATS

(Continued from Page 54)

pense. To suppose that the superintendent and school board did not know of the conditions is to condemn them of being even more negligent of the welfare of the children in their care.

Summary of Investigation

Thus far it has been the purpose of the writer to suggest to the general school public the graveness of the seating problem. Basic facts have been presented, founded upon an extensive investigation and an intensive study of the data that were obtained. The writer has been connected with classroom seating in four ways: (1) As a pupil he well remembers two situations, one as a little fellow occupying half of an old click-clack seat that was so high he feared moving, and the other when in high school he rode the desk he used upon his knees while trying to do his assignments. (2) He has been a teacher; (3) He has been a school-furniture salesman for four different firms. (5) As an investigator he has gathered measurements of children and the various desks they were using together with supplementary information on posture and the related effects. A total of 1,493 children, together with their seats and desks, were measured in three types of schools—a highly selected school, a fourth-class city school, and several rural schools. The measurements obtained of the children were their standing height, elbow height, and knee-height. Other information obtained were their ages, grades, and when available, their weights. The heights of the seats and desks were gotten in each instance. A furniture catalog study of various desk sizes and dimensions, together with the manufacturers' recommendation of size distributions, was also made for general comparisons. Without reproducing the technical graphs and charts, and the extensive tables for substantiation the summary of conclusions reached in this investigation are presented in the following paragraphs. Some of these facts will be explained and enlarged upon in an article to follow, dealing mainly with the routine of measuring children to determine their seat-height and desk-height needs and the supervision of seating.

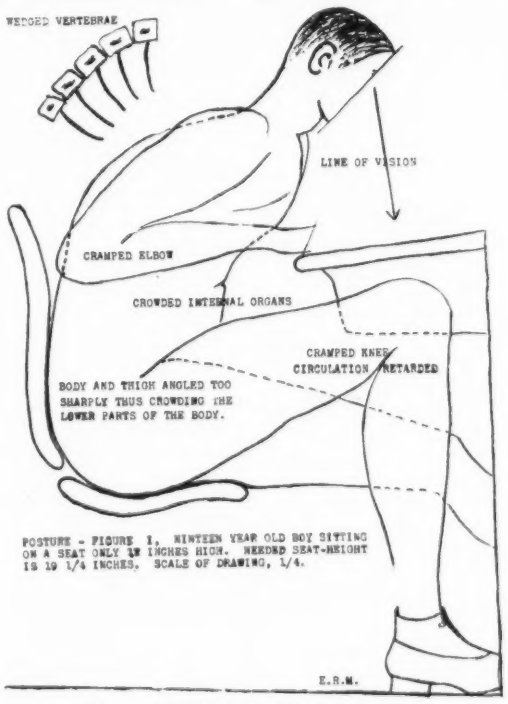
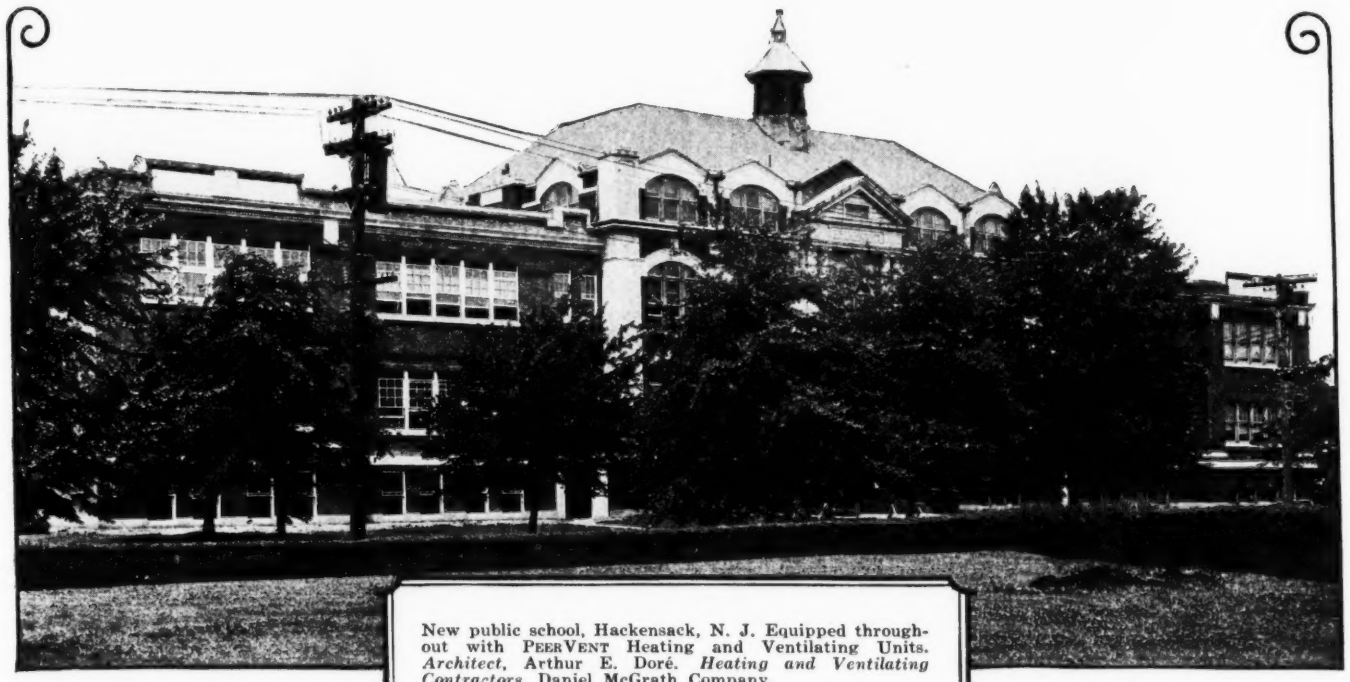

WEDGED VERTEBRAE
LINE OF VISION
CRAMPED ELBOW
CROWDED INTERNAL ORGANS
CRAMPED KNEE
CIRCULATION RETARDED
BODY AND THIGH ANGLED TOO SHARPLY THUS CROWDING THE LOWER PARTS OF THE BODY.
POSTURE - FIGURE 1. NINTEEN YEAR OLD BOY SITTING ON A SEAT ONLY 12 INCHES HIGH. NEEDED SEAT-HEIGHT IS 19 1/4 INCHES. SCALE OF DRAWING, 1/4.
E.R.M.

FIG. 1. EFFECT OF SEAT TOO LOW

Findings

1. The only safe way to get measurements by the use of which we may properly seat a child is to get directly his knee-height and elbow-height.
2. While there is a high correlation between standing height and knee-height, standing height and elbow-height, knee-height and elbow-height, weight and knee-height, age and knee-height, and grade and knee-height, there are such wide variations in any two of these series of data that no one can be used reliably to calculate the other.
3. The correlation between standing height and knee-height is greater for the primary chil-

(Concluded on Page 122)



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(Concluded from Page 120)

dren (first and second grades) than for the upper grades (seventh and eighth).

4. Age, grade, standing height, and weight are insufficient data on which to make seat-height calculations.

5. There is no fixed relationship between seat-height and desk-height.

6. The seat and desk both should be adjustable as to their height. If either must be fixed, it seems safer to have the seat adjustable and the desk fixed.

7. Nonadjustable desks should be made in at least eight sizes with seating heights as follows: *10.75, 12.25, 13, 13.75, 14.75, 15.75, 16.75, and 18 inches for both boys and girls.* (See Table XVII.)

8. All other measurements equal, the knee-height of a heavy child is less than that of a light-weight one and therefore needs a lower seat.

9. Slender children should have utmost care in being fitted with seats and desks. The seat should be just right, not over the measured knee-height nor more than ½ inch lower. This conclusion is a corrollary to ¶8 plus observational information concerning effects of misfitted seats and desks.

10. Girls on the average require higher seats and lower desks than boys of the same ages up to about 15, particularly from 9 to 15. At approximately 15, girls' knee-heights begin to decrease slightly due to the growth in thickness of the hips and thighs during later adolescence. This decrease seems to continue until about the eighteenth year when an increase is again noticeable.

11. Percentage tables are not reliable for the selection of desk sizes for classrooms, but may be used for the selection of a large number of seats and desks for a school system.

Desk-Height Distribution

12. For an average elementary school system requiring several hundred desks of an eight-size distribution, 4 per cent should have seats 10.75 inches high, 7 per cent 12.25 inches high, 11 per cent 13.00 inches high, 19 per cent 13.75 inches high, 20 per cent 14.75 inches high, 19 per cent 15.75 inches high, 14 per cent 16.75 inches high, and 6 per cent 18 inches high. (For other distributions see Tables XVI and XVII). Any distribution of sizes that requires a conspicuously high per cent of children to be seated on one or two sizes is bad as it too nearly approaches the old idea of one-size seat or desk for all children.

14. Pubescent children should have frequent and close attention given to their posture. They should not be seated more than one inch lower than their measured knee-heights. If a child is fleshy, he may be seated as much as ½ inch above his measured knee-height.

15. Other things equal, a child is more hygienically seated when on a seat ½ inch higher than the measure dictated by his knee-height than on a seat that is as much as 2 inches lower.

16. The distance above or below the measured knee-height at which a pupil may be hygienically seated varies directly with the length of the thigh and proportionate to the knee-height.

UNNECESSARY LEANING FORWARD TO REACH DESK. A FREQUENT POSTURE OF CHILDREN STUDIED IN THIS INVESTIGATION.
BODY AND THIGHS ANGLED TOO SHARPLY BY OVER-TILTED SEAT, CROWDING THE LOWER ORGANS.

POSTURE—FIG. II.

A nine-year-old girl sitting on seat that is too high for her. Tilt of seat is 2½ in. A most unhygienic posture; very tiresome.

17. Interference with circulation, under the knees, because of a high seat, is not as injurious to a child as interference with the growth and functioning of the international organs, particularly the lungs and the stomach after lunch, because of a low seat—at least is not as productive of restlessness.

18. A widely separated seat and desk is more conducive to bad posture than either a seat and desk too low or too high. Such arrangement causes undue leaning forward, resulting in spinal strain and a crowding of the internal organs. The desk-edge should not be more than 1½ to 3 inches from the sternum varying according to the size of the pupil.

19. The basis for spacing the seat and desk should be on the distance of the desk top edge from the back of the seat and not from the front edge of the seat. The distance for normal children six years old is approximately 9 inches. If the child is slender the distance is less; if fleshy, it is more. The average annual increase in the distance is about ¼ inch for the first three years for both boys and girls. At about 9, more for boys until they approach the age of puberty (about 12). At about 13, more for girls until they are about 18. (See Table XVIII for the annual distance between seats and desks).

20. The tilt of the seat varies directly with the depth of the seat from the front to the back edges. This ratio is about 1 to 16 for the average boy or girl but is more for fleshy children and adolescent girls.

21. School officials and teachers have been unnecessarily neglectful in the selection of proper desk sizes and keeping the children properly fitted with seats and desks. They rely too much upon janitors and other employees who know very little about hygienic seating of children. A large school system can well afford to make the adjustment of seats a special phase of health work which is equally as important as most other phases.

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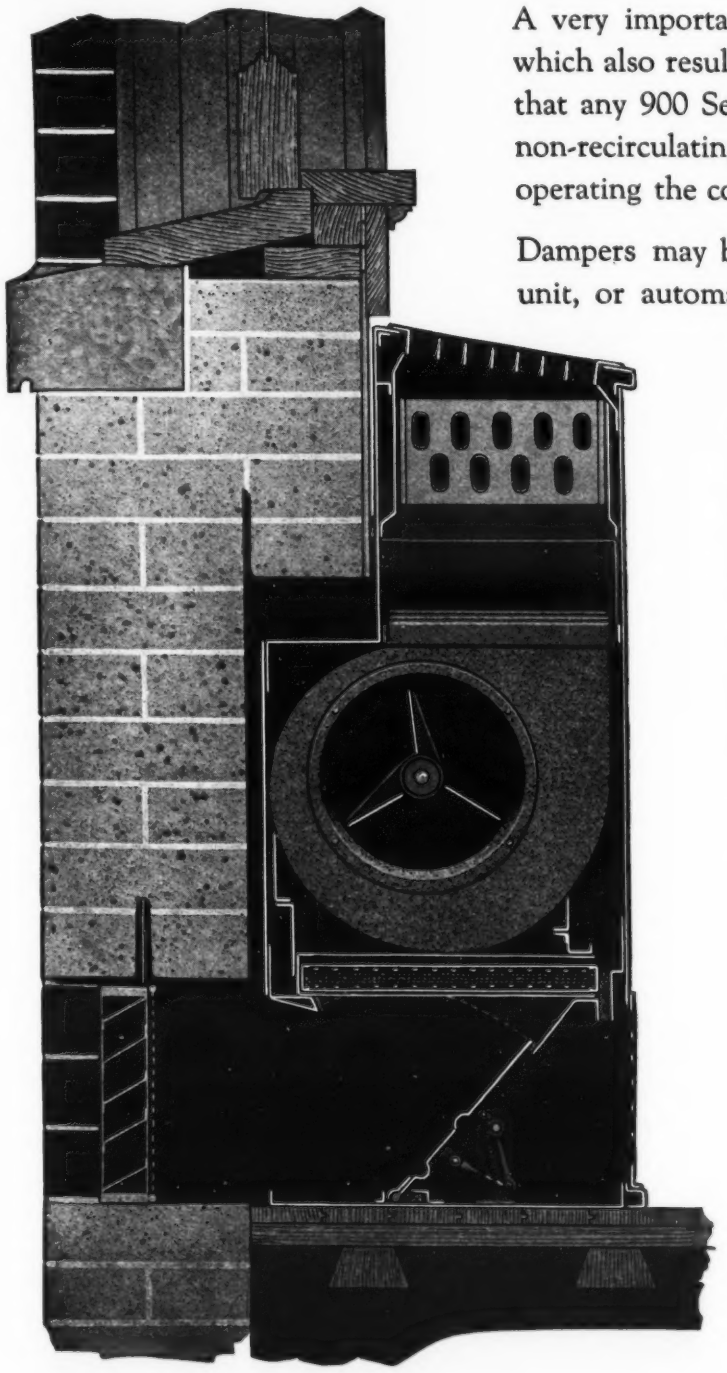

A very important feature, one which is very convenient and which also results in a very appreciable saving in fuel is the fact that any 900 Series Buckeye Heatovent can be changed from a non-recirculating to a recirculating unit and vice-versa by merely operating the combination intake and recirculation damper.

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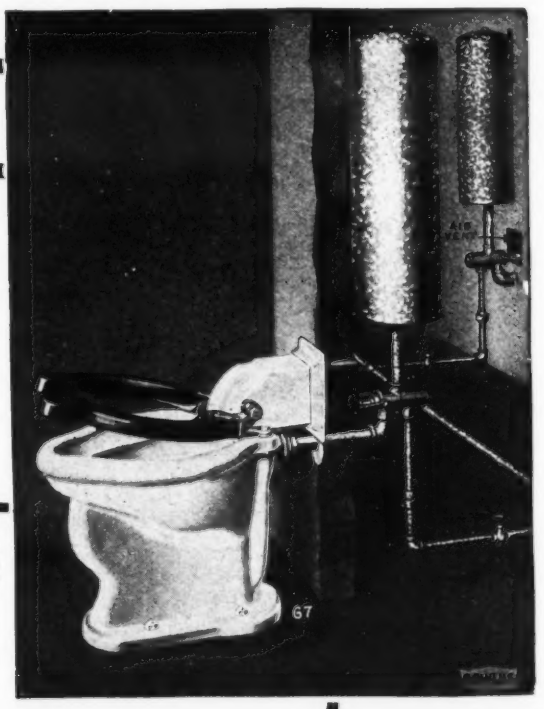

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Very truly yours,
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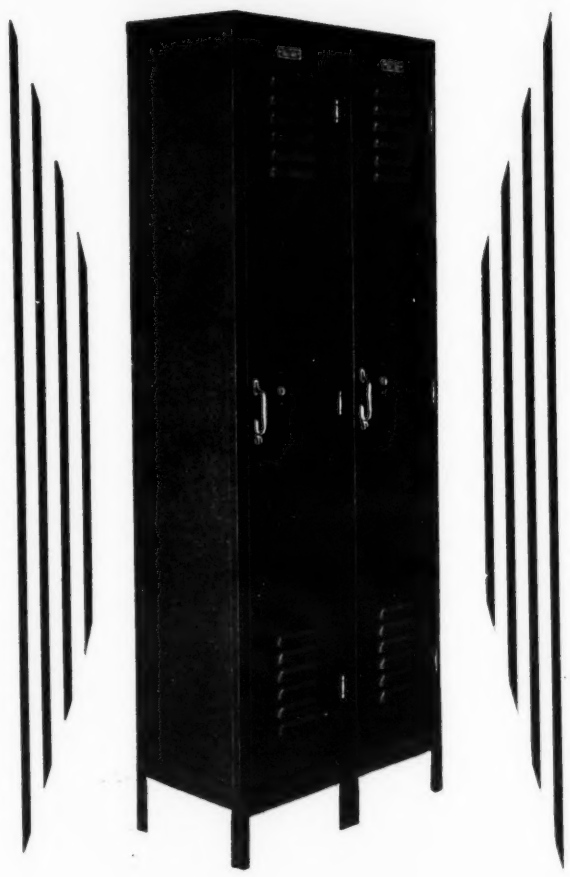

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THE HIGH-SCHOOL DORMITORY IN A RURAL MONTANA DISTRICT

(Concluded from Page 51)

strength and tact of the matron will determine the success of the dormitory more than any other single factor. I have known of superintendents routed out in the middle of the night to break up a jangle which was precipitated by an incompetent matron.

The fact is, the superintendent is the one who has the final reckoning to make if the matron's course runs awry. For that reason, if no other, I believe that the dormitory should be closely correlated with the general administration of the school. The selection of a matron should be done after the most careful and painstaking investigation.

We have regularly applications from some motherly soul who has children of her own to educate and believes that she can take the matron's position and thereby earn keep for herself and children while they are in high school. I do not mean to criticize this sort of ambition by any means, but I do say that unless the woman has qualifications other than the ambition referred to above, she will find the position no bed of flowers, but rather a bed of red-hot coals. And the fact that she has children of her own mingling with those of the dormitory makes her position almost impossibly hard.

A good matron should be kept on as long as she will stay. In case a change comes, the superintendent should investigate every application as carefully as he does the most difficult position on his staff, and make his recommendations to the school board. The trouble here lies in the fact that there are so few dormitories and so few matrons that few experienced matrons will apply. For the most part, all of the applications will come from inexperienced persons, so that the selection is one of judgment purely, and one man's guess is likely as good as another's. School officials should never assume that the matron must be a resident of the community. It often pays to look afield. A stranger can often do better than one who is hampered by the likes and dislikes which follow long residence in a town. There is no fixed rule in electing a matron.

A Part of School Organization

The superintendent is always interested, in looking over a new departure, to know whether the organization will be a part of the system or an offshoot from it. For a long time we treated athletics and general outside activities with a superior, detached attitude. Finally came the era of supervision, and nowadays we hear a great deal of incorporation. If new dormitories are to be founded, the superintendent should assume from the very start a careful and friendly interest in them. From the outset the dormitory should be regarded as a department of the school. Rules should be worked out by the matron with the cooperation of the superintendent, keeping an eye to the good of the school as a whole. Otherwise we may find the dormitory as a thing apart, a fungus growth as it were.

This question has often been asked. Would it be a wise move to start a dormitory in our town? My answer to that has always been: "It depends."

Assuming that there is money to support a dormitory and that other means of boarding the children are not available, a high-school principal must have other items to consider. I referred before to the hybrid nature of the school dormitory. It is not a home, and it is not a boarding school. Its success depends upon the effectiveness of its rules and regulations.

If children are sent to a dormitory to live and are found on the streets at all hours of the night, the dormitory will fail. And yet there are parents in most towns who permit their children to run the streets in just that way. If there are only a few in the dormitory and a great number of other high-school students are allowed to run wild, it is going to be hard to explain to the dormitory students just why they should not run fully as wild. It is easy for a small dormitory in a large school to be dissolved by the behavior of those not under the matron's care. In our larger towns I doubt if a dormitory would succeed as it does in a town like ours where over a third of the students live in the dormitory. In our case, most of the parents assume that the rules of the dormitory are the rules which should guide all the girls and all the boys. Here we have an instance where the dormitory has dissolved the juvenile life of the village. Possibly by this we are doing a great deal of good.

ANALYSIS OF DIFFICULTIES BETWEEN SCHOOL BOARDS AND SUPERINTENDENTS IN TEXAS AS RECOGNIZED BY THE PRESIDENTS OF THE BOARDS

(Continued from Page 44)

For example, many boards may not know that they have a budgetary problem because they may not know there is such a thing.

In Conclusion

The study presented in the July, 1928, issue of the SCHOOL BOARD JOURNAL, along with this article holds much "food for thought" for administrative boards and chief executive officers alike. These studies offer some objective evidence on the basic principles of educational administration. It is plain from the data in these two articles that neither boards of education nor superintendents of schools should be foot loose and fancy free in the direction of public education.

Here are hard facts substantiating the thesis that the first obligation of a board of education is the selection of a chief executive officer. But close on to this duty of selecting a superintendent of schools comes the responsibility of cabinet action and direction of the superintendent by the board. Board members by and large do want superintendents to be the technical officers of

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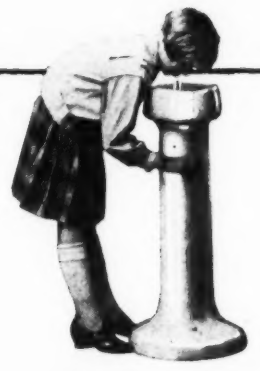

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their school systems. But just as a parent should check the diagnosis of a physician at the bedside of a child, so should boards of education carefully analyze the work of a superintendent.

If the superintendent will study the testimony of these 96 school-board presidents, he will find a general appeal for light from these board presidents. The first job a superintendent has is that of educating the board under which he works. It would seem from these findings that this basic responsibility has not always been fully assumed. Also, superintendents must make sure that delegated responsibility and corresponding authority are not abused on the one hand, nor shirked or dodged on the other. Superintendents of schools must assume proper responsibilities, enjoy sound administrative autonomy, refrain from autocracy, and operate in terms of professionally developed policies.

THE MASTER TEACHER AND THE SUPERVISOR

(Concluded from Page 38)

performing other important duties about the school.

Thus the cadet gets off to a right start. Responsibility gradually follows evidence of mastery and confidence. The period of worry and agony during the first year of experience is eliminated, for correct methods of attack, give correct patterns of behavior. Those who at the end of this probationary period show evidence of ability as teachers will be assured of permanent positions in time, and those who show no adaptability will, by the refusal of a recommendation, be shunted from the field of teaching before it is too late for them to establish themselves in some other field of endeavor for which they are better adapted.

Relationships of Staff and Field

The cadet teacher has little contact with staff specialists until she has full room responsibility. Then she is free to seek and use all available aids. A staff specialist makes proposals through the school principal whenever the need arises, but

The teacher is held responsible for her achievements and is free to choose her own detailed procedure.

Personal Relationships

Since the supervisor has been invited by the teacher and since the teacher knows that her rating will not be affected by the visit, there is little likelihood of suspicion, fear, lack of sympathy, or resentment. Supervision in this case is not a substitute for activity on the part of the teacher. Instead it is real supervision, a real help, a compliment to a piece of work already being done. The supervisor has no more prestige than the merit of his proposals themselves warrant. He makes no recommendations on appointments, tenure, or promotion. Inspection is removed, tension is gone, and a natural approach to the problem under consideration is possible. One motive remains—*educational improvement.*

THE CITY GOVERNMENT AND ITS CONTROL OVER SCHOOL EXPENDITURES

(Concluded from Page 41)

having certain qualifications and that they receive a wage in keeping with the responsibility and standard of living which they should set for the community. It is the business of the state that every teacher and every child shall have suitable materials with which to work. The state is concerned with many other items which might be mentioned as being necessary for the development of the school program. Until the city administrators and the critics who advocate the fiscal dependence of the schools upon the city can point to more efficient returns per dollar of tax money expended, than can the schools in analogous situations, their arguments will not greatly concern the school administrators.

Research by at least two students of educational administration has presented strong evidence that the control of the amount of income should rest with the board of education. Frasier made a careful study in which he proved, by the application of certain defensible criteria, that fiscal independence works better in practice.[36] McGaughy proved that the schools in fiscally independent cities did not cost more than those in fiscally dependent cities, which fact took away the most important argument the "fiscally dependent" theorists had. McGaughy[37] also presented evidence of other types to substantiate Frasier's study.

The leading proponent of fiscal independence for school authorities have been George D. Strayer and N. L. Engelhardt, who have given most of the studies in this field their encouragement, aid, advice, and direction.

Many authorities might be cited as favoring fiscal dependence of school boards. An analysis of their arguments will serve no purpose here because they have not had the weight of acceptance by the courts.

The advocates of the fiscal dependence of the school authorities upon the city government come from the authorities upon municipal administration.[38]

[36] Frasier, G. W. The Control of City School Finance. pp. 83-87. Bruce Publishing Co., 1922.
[37] McGaughy, J. R. The Fiscal Administration of City School Systems, The Educational Finance Inquiry, Vol. V. Macmillan, 1924.
[38] Anderson, Wm. American City Government, pp. 90-96. Henry Holt & Co., 1926. Buck, A. E. Municipal Finance, pp. 27-30. Macmillan, 1926. Goodnow, F. J. and Bates, F. G. Municipal Government. Chapter XVI. Century Co., 1925.

FACTORS AFFECTING THE COST OF SCHOOL TRANSPORTATION IN CALIFORNIA

A study of the factors affecting the cost of school transportation in California was recently undertaken by Dr. F. E. Evans of Berkeley, in order to evaluate the expenditures for school transportation in the state. In doing so, four objectives were set up as follows: (1) To collect and summarize data showing how much is expended for school transportation; (2) to find an adequate means of comparing such costs; (3) to account for the wide variation in costs as commonly reported; and (4) to establish norms which may be used as standards.

The data were obtained from questionnaires directed to school officials and included such items

(Concluded on Page 129)

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It's the steady strain of day in and day out service that tests the ability of any plumbing fixture to meet the requirements of school use . . . and it's the number of years of trouble-free operation that determines the economy of any school plumbing installation.

"NONCO" designs are based on almost a half century of experience in building SCHOOL plumbing fixtures, and the fact that many "NONCO" installations are performing faithfully today after more than 45 years of continuous, trouble-free service accounts for their unparalleled reputation for DEPENDABILITY—and consequently, economy.

Vitreous china pedestal fountain, self-closing valve, vitreous china bubbler, and concealed pressure regulator. Waste and supply pipes within pedestal. Heavily nickeled trimming. Exposed Trimmings can be finished in everlasting chromium finish at additional cost.

N. O. NELSON MFG. CO.

Pioneer Manufacturers of Plumbing Fixtures for Schools

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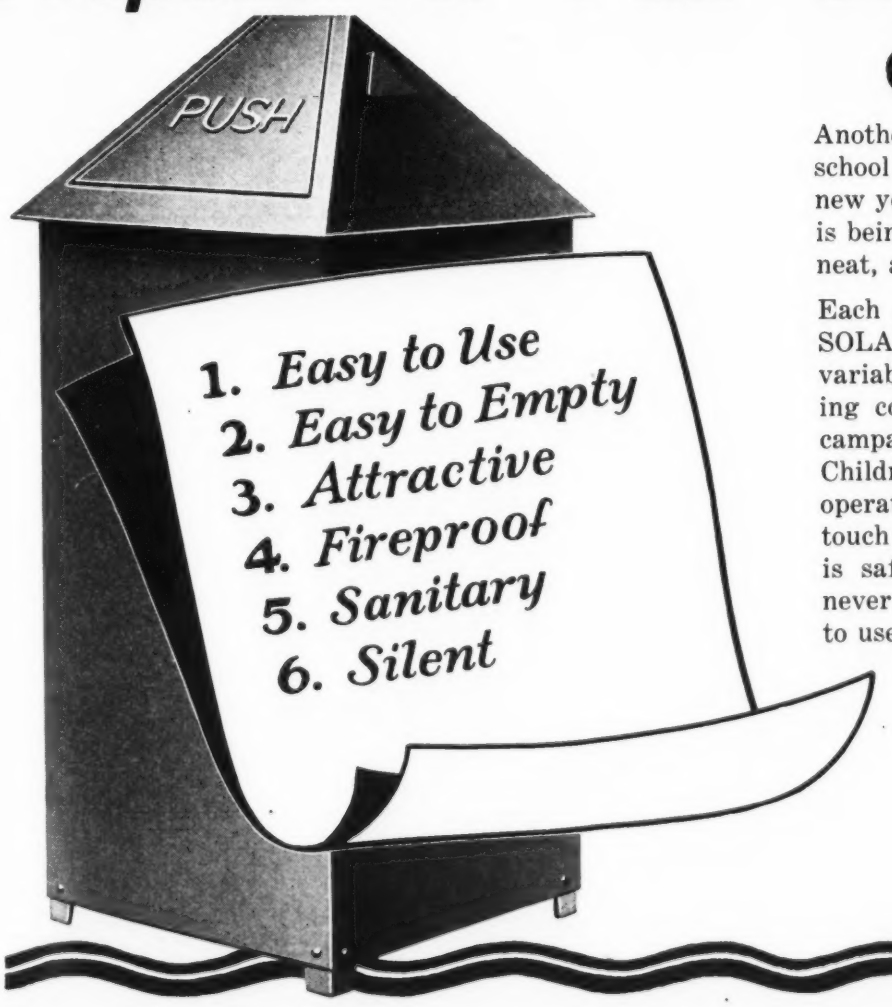
Prepare for Fall Classes—



Order SOLARS now!

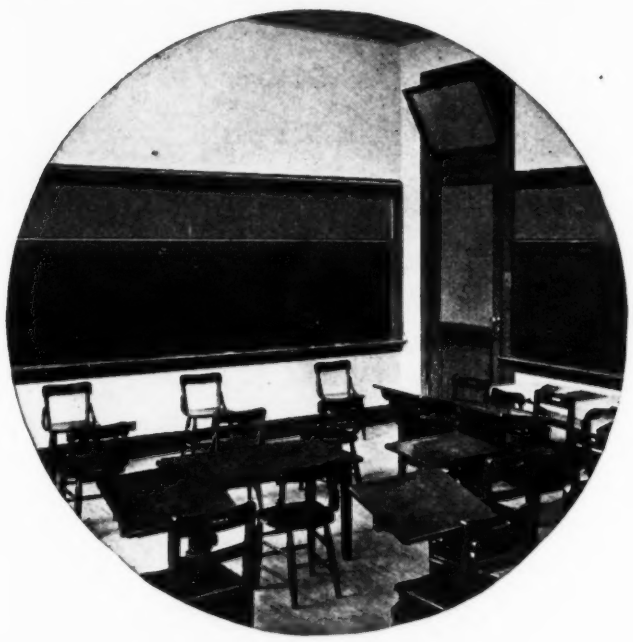
Another month will see the reopening of thousands of school buildings—spick and span and ready to start the new year with a clean slate. And what special provision is being made to *keep* these buildings and their grounds neat, attractive, orderly and safe?

Each year an increasing number of schools adopt the SOLAR method of waste disposal—a method which invariably results in cleaner schools and in lowered cleaning costs as well—which enlists children in an active campaign for cleanliness, sanitation and safety from fire. Children love to use the SOLAR. Its patented, gravity operated top which opens like magic at their lightest touch and which automatically closes again when refuse is safely deposited within, holds an attraction which never grows old. Grown folks, too, step out of their way to use the SOLAR.

Prepare your school for fall classes now! Install enough SOLAR Self-Closing RECEPTACLES to give them a fair trial. You will be surprised at the reduction in your janitors' cleaning time.

Write for literature outlining the school use of SOLAR Self-Closing RECEPTACLES.

SOLAR-STURGES MFG. CO.
MELROSE PARK, ILLINOIS



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for Blackboards — Wainscoting — Toilet Partitions — Shower Stalls — Lintels — Treads — Sinks — Shingles

When you buy Slate, you buy more than materials. For with the Slate you need *service*. Our Slate is quarried, worked, finished, sold and shipped by a single, compact organization. It comes cut to size and ready for installation—*on time!*

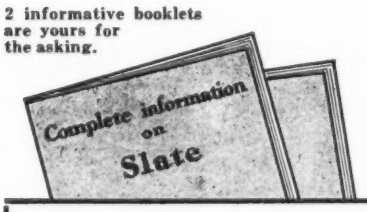
A Word about DURO-CORK

Duro-Cork, for display boards, is supplied in full 14-ft. lengths and 4-ft. widths. If preferred, it will be delivered cut to exact required sizes. Ask for quotations.

Pennsylvania
Structural Slate Company

First National Bank Bldg. Easton, Penna.

2 informative booklets are yours for the asking.



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PENNSYLVANIA STRUCTURAL SLATE CO., Easton, Pa.
(check square for information desired)

☐ Please quote on.....square feet of Pennsylvania Structural Slate Blackboards, delivered to address below.

☐ Please quote on.....square feet of Duro-Cork, delivered to address below.

☐ Please send specifications and setting instructions for Blackboards and Bulletin Boards.

☐ Plans are being forwarded for quotation on.....job.

Name.....

Address.....City and State.....

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School Crayons and Chalks

AN-DU-SEPTIC and ANTI-DUST 95% Pure Dustless Blackboard Crayons, and GOLD MEDAL colored chalks enjoy an enviable position on school supply lists because school supply buyers can always depend on the reliability of these products, and know they are the best, most economical buy.

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CRAYOLA Wax Crayons
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ARTISTA Water Colors
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The line of NORWEST Steel Lockers and other Storage Equipment presented therein is complete and embodies the most advanced ideas of storage experts. You will find it to your advantage to have a copy of this catalog in your reference file.

Write for your copy today.

NORTH WESTERN STEEL PRODUCTS CO.

Subsidiary of the North Western Expanded Metal Co.

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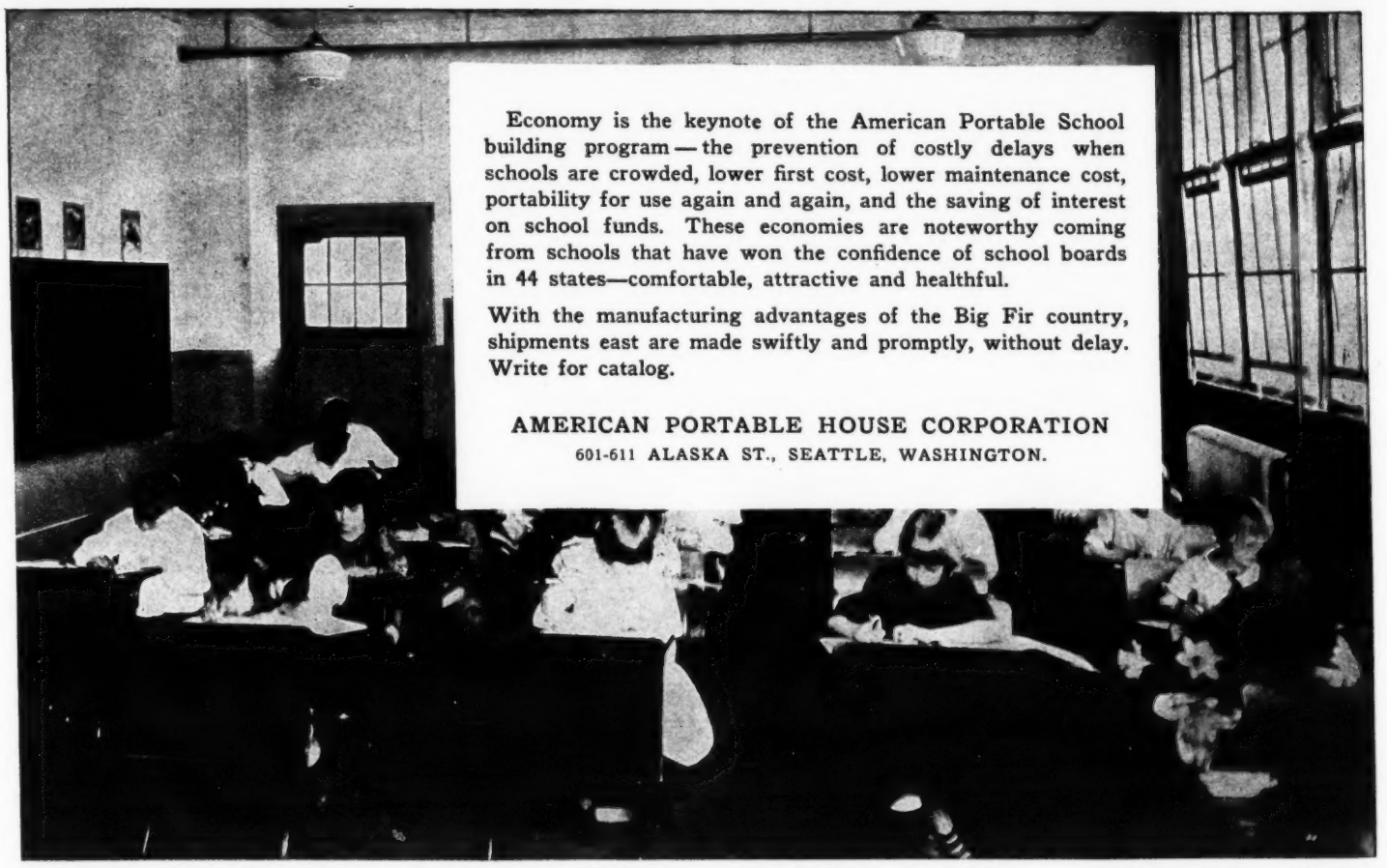

Economy is the keynote of the American Portable School building program — the prevention of costly delays when schools are crowded, lower first cost, lower maintenance cost, portability for use again and again, and the saving of interest on school funds. These economies are noteworthy coming from schools that have won the confidence of school boards in 44 states—comfortable, attractive and healthful.

With the manufacturing advantages of the Big Fir country, shipments east are made swiftly and promptly, without delay. Write for catalog.

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(Concluded from Page 126)

as length of each route, the equipment used, the number of pupils served, and actual cost figures.

In the study, replies were received from 259 schools describing 668 transportation projects. Final annual reports were received from 98 schools in which adequate systems of cost accounting are in use, and an analysis was made of the various items of expenditure for transportation in these schools. Reports from the county superintendents and the results of local studies of transportation were used as supplementary material.

A general summary of the material received emphasized the lack of an acceptable basis for comparing costs. The reported costs, on the basis of the mile or derivative units, were found so variable that no estimate was possible as to what constituted a proper cost in any given case. The cost per mile was found to be more variable than the total cost of projects.

The total cost per day for a given transportation project was found to bear a direct and simple relationship to the number of pupils to be served and the length of the route. Its use was therefore adopted as a means of avoiding inconsistencies of using the cost per mile units derived from it. A method of showing the relation between the total cost per day and these natural difficulties was found in the regression of cost upon daily mileage and the load carried. From the equation of the line, estimates may be made of the most probable cost of any transportation project if the mileage and average load are known. These estimates, being derived from the averages of groups, are also a means of detecting excessive costs.

In explanation of deviations from the expected cost due to business management, analyses of the expenditures for various purposes were made and norms for the payment of wages, the investment in equipment, and the cost of operation and upkeep were established. From the table of estimated costs and the norms, it should be possible to detect excessive costs and to find in what respect the unnecessary expenditure is made.

The Summary

In summarizing, it was noted by Dr. Evans that the average cost per mile for operating a bus is 22 cents. The average annual cost per student is $41.35. When compared with other states, the cost per mile is rather low, and the cost per student is high. This is due to the large percentage of high-school students transported in the state and the longer distances which the school busses travel. Much of the variation in costs is apparent rather than real and arises from the use of variable quantities as units of measurement. The real variation bears a close relationship to the number of children to be transported and the distance the busses travel.

Deviations from the expected cost are generally due to the original investment in equipment or the wages paid to drivers. Investment in expensive equipment to be used for short trips or small loads leads to high charges for depreciation and interest. There has been a tendency to pay the same wage to all drivers in the same school, regardless of the differences in routes. Both wages and depreciation are more variable than the cost of operation and upkeep, and the norms derived in the study may be used to reduce this apparent variability.

THE ILLINOIS TEACHER CERTIFICATION LAW

The certification bill which passed the last session of the Illinois state legislature has been before the legislature for the past three sessions. It was intended to cure the defects of the law passed in 1913. Up to 1913 there were 102 different certificating agencies in the state. The standards for certificating teachers in one county were rarely the same as in any other county. Each county superintendent administered the requirements of the law for certificating teachers within his own interpretation.

The new certification law does not involve an abrupt and radical change. The advance in standard is to be a gradual one, but within the next six years Illinois will have attained a place beside those states which have the most advanced requirements for the professional training of their teachers.

NEW ARCHITECTURAL FIRM

Announcement has been made of the organization of a new architectural firm through the consolidation of the architectural and engineering offices of Verner, Wilhelm & Shreve, and Harry S. Angell. The firm will be known as Angell, Wilhelm & Shreve and will have its offices at 750 Book Building, Detroit, Mich.

Mr. Angell, who will head the architectural division of the firm, will be responsible for the designing of new buildings. Mr. Wilhelm will be in charge of the sales activities, civil engineering, and construction supervision. Mr. Shreve will head the structural engineering division.

PERSONAL NEWS

—Mr. G. M. Kennedy has been reelected as president of the school board of Canandaigua, N. Y., for the next year. Other officers elected are: Dr. A. W. Armstrong, vice-president; Mr. G. W. Hamlin, treasurer; and F. E. Fisk, clerk.

—Mr. Earl Welshimer of Union county, Ohio, has been elected superintendent of schools at Pleasant Hill.

—Supt. J. L. Prescott of Nashville, Mich., has been reelected for a second term.

—Mr. Paul Banker has been elected superintendent of schools at Rockland, Mich.

—Mr. Emery E. Jacques of Marquette, Mich., has been elected superintendent of schools of the Elm River township school system at Winona.

—Mr. J. B. Carson of Marysville, Ohio, has been elected superintendent of schools at New Dover, to succeed H. L. Shibler, who goes to Tiro. Mr. Robert Chandler, of Plain City, has been elected to succeed Mr. Carson at Marysville.

—Mr. R. E. Staffelbach has been elected superintendent of schools at Nowata, Okla.

—Mr. O. C. Sutherland of Webster City, Iowa, has been elected superintendent of schools at Bellevue, to succeed R. S. Beall.

—Mr. George E. Brown of Greeley, Colo., has been elected superintendent of schools at Bisbee, Ariz. Before his appointment as superintendent of schools in Greeley in 1916, Mr. Brown was in charge of public instruction at Wenatchee, Wash., for several years. He was recently guest of honor at a banquet given in appreciation of his services as head of the Greeley school system by the local teachers' club.

—Mr. A. W. Schmidt has been appointed to the position of assistant in educational finance in the office of the Assistant Commissioner of Finance of the New York State Education Department.

—Mr. Samuel C. Miller has been appointed acting superintendent of schools at Wilmington, Del. Mr. Miller is filling the vacancy caused by the resignation of Mr. D. A. Ward.

—William C. McGinnis, who for eight years was superintendent of schools of Revere, Mass., has refused to accept the office as superintendent of schools at Fitchburg, Mass.

—Supt. W. H. Buker of Rochester, N. H., has been reelected for a new term of three years, with a substantial increase in salary.

Book News and Reviews

The Selection of Textbooks and the Use of Rating Scales[1]

Samuel Engle Burr, Director of Research, Lynn, Mass.

When a new textbook is to be selected, the problem is one which offers an opportunity to accomplish two distinct purposes—first, there is the obvious opportunity to select a better textbook than has been used heretofore. The second opportunity is to extend the education and experience of those people charged with selecting the new book.

Because of the many factors to be considered in selecting a textbook, and because these factors vary from subject to subject, and from grade to grade, and often from school to school, it is impossible to prepare a single textbook rating scale and have it used throughout the country or even throughout a single school system. It is possible, however, to prepare a suggestive scale, or to list a few outstanding considerations and have these serve as the basis for the work of a local committee interested in its own particular problem. Here comes the opportunity for extending the education of the members of the committee.

It is of inestimable value for classroom teachers to serve in this capacity, to sit down together with a supervisory or administrative officer as an advisory member, and to carefully consider the factors to be taken into account in choosing a textbook for a given situation. The value of this procedure is also apparent after the selection has been made, for if there is criticism of the selection, those classroom teachers who have taken part in the deliberations of the committee will be ready and willing to defend their choice and the means by which the choice was made.

Defense such as this, coming from teachers themselves, is worth ever so much more, psychologically, than defense by a supervisory or by an administrative officer. As has been indicated, the supervisor or administrator who serves as an advisory member of a committee of teachers engaged in rating textbooks, has a unique opportunity to help these teachers, but he must be a master of practical psychology in order to be most effective. He must always carefully refrain from being dictatorial and from monopolizing more than his share of the time given to discussion. He can help best by raising leading questions, by offering general suggestions, and by calling attention to what authorities have found through organized research.

The first work of the committee should be to outline the general considerations which will guide in selecting the text. Then, these general considerations should be developed into a definite rating scale which is thoroughly objective and which will give comparable results when used by the various members of the committee.

My experience in the use of rating scales is that the details of them can be classified under two main headings: first, those general factors which must be considered, regardless of the subject, regardless of the grade, and regardless of the location of the school; and second, those specific factors which vary from subject to subject, from grade to grade, and from school to school.

The suggestive rating scale which accompanies this article indicates the kind of topics included under these two main classifications. It will be noticed that such things as the authorship, the copyright date, the mechanical features, and the make-up of the book are general in their nature, and must be considered whenever any textbook is being selected. On the other hand, the selection of subject matter, the organization and presentation of the subject matter, the indicated technique for teaching, and the aids to instruction, will depend upon the specific case being considered.

This suggestive rating scale has not been used in rating the textbooks for any specific situation. It has rather been used as a starting point, and committees of teachers have varied it, and used it as a basis for the development of specific rating scales for the various grades and subjects in our school system.

In this basic rating scale, no definite values are given to the various subdivisions. This is something which must be worked out by the particular textbook committee.

Suggestive Rating Scale for Textbooks

I. General or constant factors.....300
  A. Authorship and general considerations.....150
    1. Author's scholarship in this special subject.
    2. Author's familiarity with scientific investigations.
      a) In this particular subject field.
      b) In reading (which is involved in all texts).
      c) In word lists (which are involved in all texts).
      d) In the technique of textbook construction.
    3. Author's classroom experience.
    4. Is the text in the language and style best suited for pupils who will use it?
    5. Is the copyright date a recent one?
    6. Does this text correlate positively with our general school objectives?
  B. Mechanical features and make-up.....150
    1. Appearance and color of binding, including cover design.
    2. Durability of binding.
    3. Quality, finish, and color of paper.
    4. Size, clearness, and attractiveness of type.
    5. Size, clearness, and attractiveness of page.
    6. Attractiveness, appropriateness, and usefulness of illustrations.
    7. Accuracy and usefulness of diagrams, charts, or maps.
    8. Dependability and usability.
    9. Freedom from errors.

II. Factors which vary with the situation.....700
  A. Subject matter and technique.....450
    1. Selection of subject matter.....150
      a) Scientific grading of material.
      b) Adaptability of material to class needs.
      c) Adaptability of material to community needs.
      d) Relative value of material.
      e) Variety of practical application to life situations.
      f) Abundance and grading of material to meet individual and group abilities and needs.
      g) Sufficiency of detail in presenting material.
    2. Organization and presentation of subject matter 150
      a) Adaptable to an activities program.
      b) Psychological sequence.
      c) Possibility of omissions, without destroying sequence.
      d) Degree of emphasis on topics.
      e) Plan for problem solution.
      f) Systematic development of reasoning power.
      g) Distribution, amount, and balance of drill.
      h) Variety and effectiveness of diagnostic testing.
    3. Technique 150
      a) Attractive to teacher and pupil.
      b) Recognize present day psychology.
      c) Provision for meeting individual differences.
      d) Natural life situations for motivation.
      e) Use of games, play, and projects.
  B. Teaching helps and aids to instruction.....250
    1. A preface of information for the teacher.
    2. Teacher's manual or guide book.
    3. Adequacy of table of contents.
    4. Adequacy of index.
    5. Adequacy of glossary.
    6. Adequacy of appendices.
    7. Adequacy of illustrations and charts or maps.
    8. Effectiveness and appeal of illustrations.
    9. Summaries and reviews.
    10. Study helps for pupils.
    11. Norms for tests.
    12. Norms recognize ability grouping.
    13. Suitable and adequate accompanying forms.

III. Total possible valuation.....1,000

[1]Reprinted from the Bulletin of the Department of Elementary-School Principals, National Education Association, for July, 1929.

NEW BOOKS

In Training for Health

C. E. Turner and J. M. Pinckney. Cloth, 151 pages, illustrated. Price, 72 cents. D. C. Heath & Company, New York, N. Y.

This book provides a fundamental text in health for the fourth grade. Its main objective is the establishment of attitudes and conduct with regard to health, and it meets its purpose by emphasizing health practice as a means for preparing to take part in athletic games, and outdoor and indoor sports. Special attention is directed to arouse the interest of children in gaining weight each month and to use this fact as a means for proving the success which children have had in play as well as diet, rest, etc., as suggested in the text. The book is well illustrated and has a common-sense enthusiasm in its style that is refreshing.

Bookkeeping Tests

By Fayette H. Elwell and J. G. Fowlkes. Tests 1 and 2. World Book Co., Yonkers, N. Y.

It is a reassuring sign of progress that the vocational and technical subjects in the high schools are subjecting themselves to the searching scrutiny which standardized tests involve. Bookkeeping is one of the latest studies to enjoy the benefits of an analysis of teaching results through the instrumentality of standard achievement tests.

The present tests are offered in alternate forms of practically equal difficulty for the close of the first and second semesters respectively in high schools and business schools. The authors have proved that the five main divisions of the subject readily lend themselves to the four or five leading types of objective questions. The tests are readily administered in 50 minute periods. They are most easily scored and interpreted. It is hoped that the authors will do further work to revise the norms.

General Science

By W. D. Pulvermacher and Charles H. Vosburgh. Cloth, 150 pages. Price, 50 cents. Globe Book Company, New York City.

This book contains a digest of the fundamental principles of general science with a series of experiments and basic review questions. The material will supplement any standard textbook.

Modern Typewriting

By H. J. Foley. Cloth, 128 pages. Price, $1.80. Globe Book Company, New York City.

This course is rather comprehensive and is ample for a rather complete year's work. The method is that of habit formation. The lessons are motivated and are frequently enhanced by efficiency tests scientifically developed to enable the student to find his own shortcomings and to apply remedial study and drill.

Biology Experiment Sheets

By S. R. Safir. Paper, 180 pages. Price, 75 cents. Globe Book Company, New York City.

This laboratory manual has been developed on the basis that all experiments should present problems affecting the student's relation to his physical environment, and to the plants and animals living in it. The ninety experiments cover the entire range of present biological study in high schools and general college classes. The work is practical, not too difficult, and requires a fair amount of equipment and materials.

Bookkeeping Exercises

By R. J. Smolin. Paper, 138 pages. Price, 67 cents. Globe Book Company, New York City.

This book provides practical laboratory work for both class and home assignments. The transactions are simple and brief, and there is splendid drill material on trial balance statements, interest, adjustments, etc.

The Swiss Family Robinson

By Johann D. Wyss. Cloth, 382 pages. Price, 80 cents. The Macmillan Company, New York City.

Wyss's tale has an undeniable charm, but to the boy who has first read Robinson Crusoe, it is long and didactic, and in spots heavy. The present edition contains an illuminating introduction.

Fundamentals of Spanish

By Louis Imbert and Francisco Pinol. Cloth, 290 pages. Published by Silver, Burdett & Company, New York City.

This first-year course for high schools and colleges takes in the fundamental principles of grammar and provides typically Spanish reading material for written and oral exercises. The vocabulary is ample.

Modern Life Arithmetics

By John G. Fowlkes and T. T. Goff. Book one, 306 pages. Book two, 330 pages. Book three, 250 pages. Macmillan Company, New York City.

These three books are intended respectively for (1) the second and third, (2) for the fourth, and (3) for the fifth grades. They are more than usually complete in problems, reviews, and test materials so that the teacher will be required to search for practically no supplementary material.

Book one introduces the subject of numbers from the standpoint of play and child interest activities. More than usual care seems to have been

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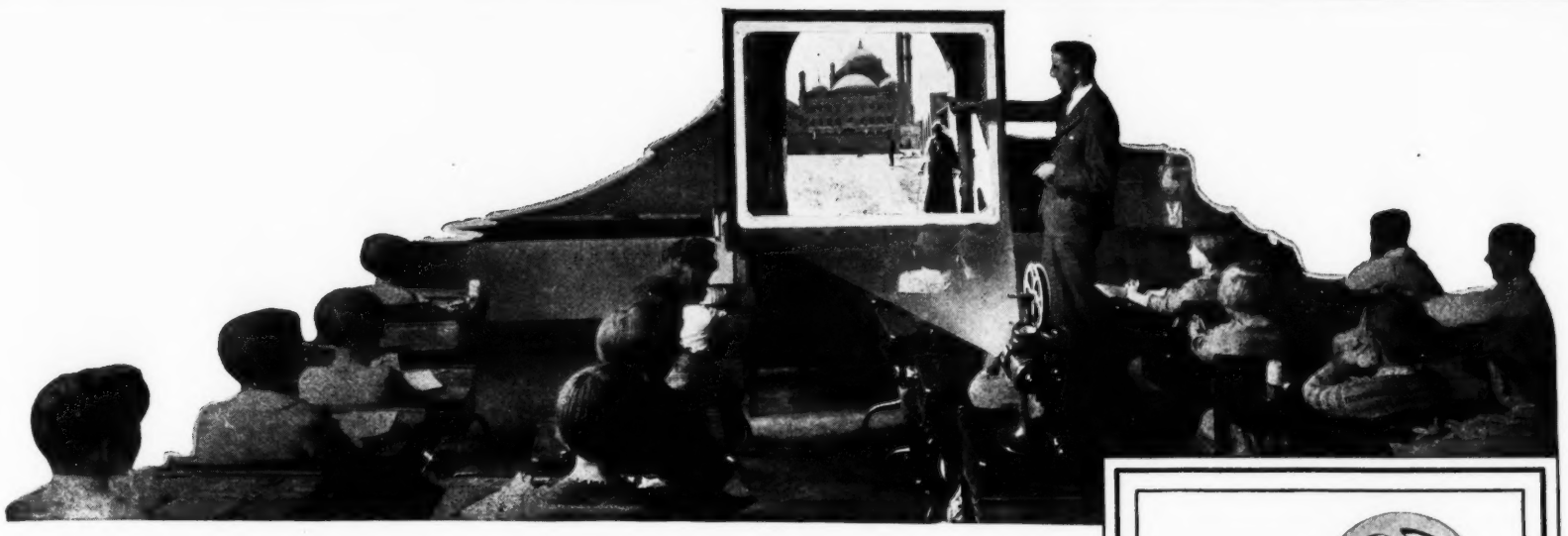

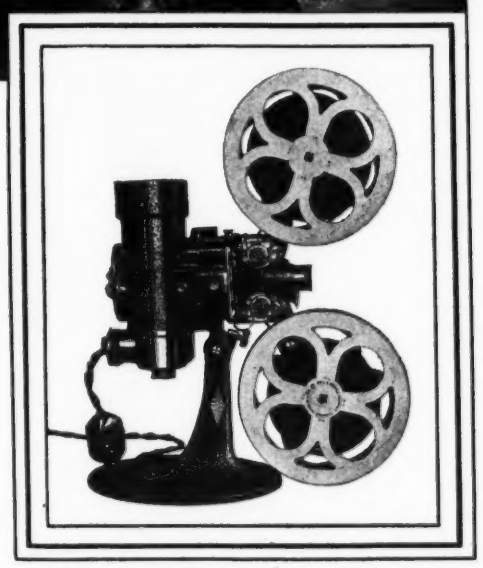

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FILMO SCHOOL PROJECTOR

IN visual education, the mind moves along rapid paths. Sound is distracting. This is one of the reasons why the Filmo 57-E School Projector is preferred for motion pictures in the school room . . . its quiet operation.

The precise nine-to-one Filmo mechanical movement which moves the film over the projector aperture not only insures maximum quiet, but absolutely eliminates "flicker", the cause of eye-strain. The powerful Filmo lighting system projects the film with theater-clear brilliance, on full-sized screens in the small class room and assembly hall alike.

The teacher may stop Filmo 57-E for still projection of any desired scene in the film in order to discuss the subject matter with the class. There is absolutely no danger of blistering the film. The machine may be reversed while in motion for reverse analysis of any kind of action, and then started forward again without a break in the projection. Setting up and threading the projector is but a couple of minutes work, and easily done. Its operation requires no special knowledge. Once started, the projector runs itself, requiring no further attention.

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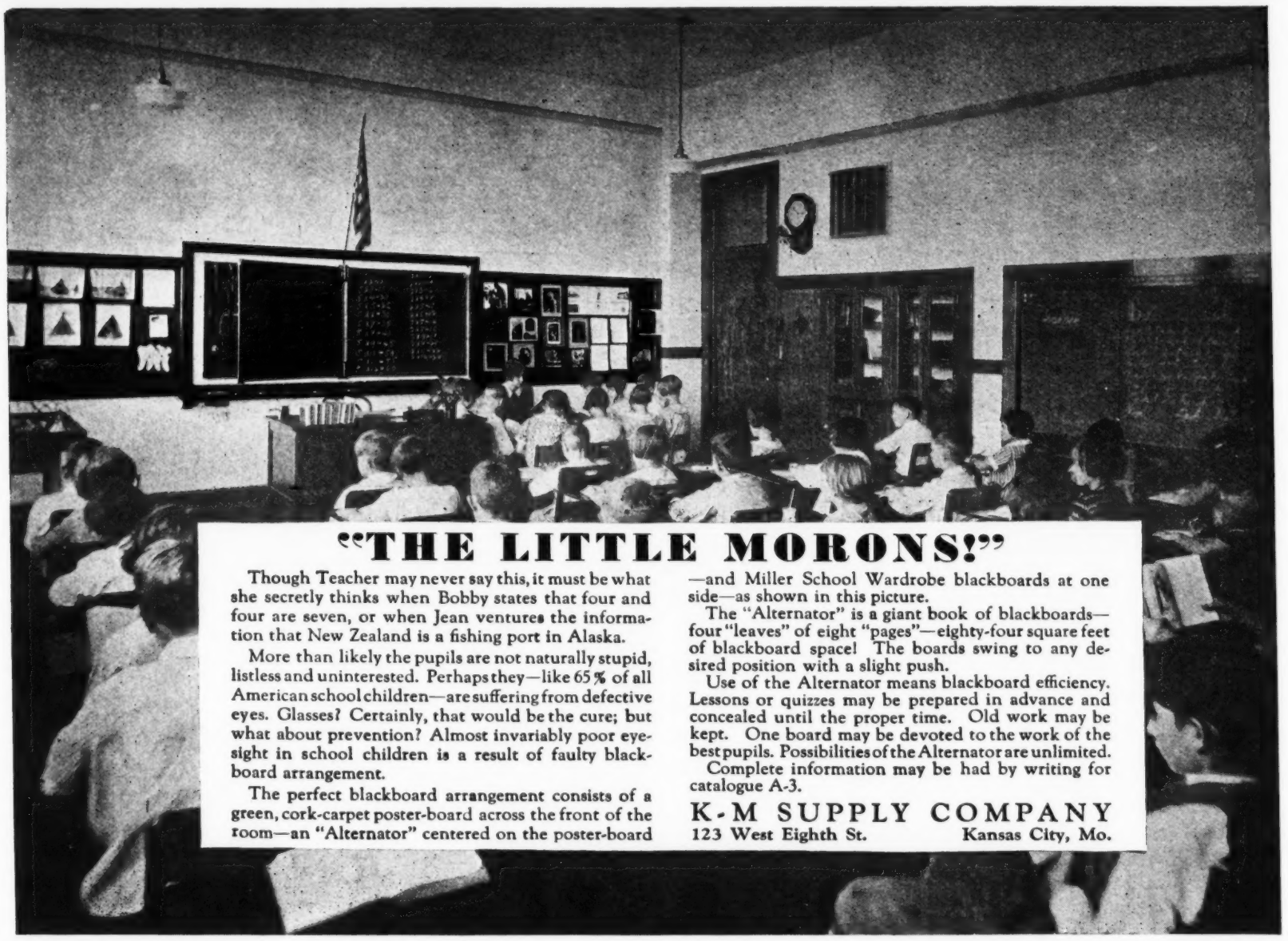
"THE LITTLE MORONS!"
Though Teacher may never say this, it must be what she secretly thinks when Bobby states that four and four are seven, or when Jean ventures the information that New Zealand is a fishing port in Alaska.
More than likely the pupils are not naturally stupid, listless and uninterested. Perhaps they—like 65% of all American school children—are suffering from defective eyes. Glasses? Certainly, that would be the cure; but what about prevention? Almost invariably poor eyesight in school children is a result of faulty blackboard arrangement.
The perfect blackboard arrangement consists of a green, cork-carpet poster-board across the front of the room—an "Alternator" centered on the poster-board —and Miller School Wardrobe blackboards at one side—as shown in this picture.
The "Alternator" is a giant book of blackboards—four "leaves" of eight "pages"—eighty-four square feet of blackboard space! The boards swing to any desired position with a slight push.
Use of the Alternator means blackboard efficiency. Lessons or quizzes may be prepared in advance and concealed until the proper time. Old work may be kept. One board may be devoted to the work of the best pupils. Possibilities of the Alternator are unlimited.
Complete information may be had by writing for catalogue A-3.
K-M SUPPLY COMPANY
123 West Eighth St. Kansas City, Mo.

(Continued from Page 130)

shown in making it complete in practice work in all the number combinations. Many of the illustrations are colored and give the book an attractive appearance.

Book two continues both the method and the style of the first book, but emphasizes more strongly the utilitarian values of the subject. The more difficult principles are developed rather informally from typical situations which children are likely to be familiar with. The reviews are interesting and contain a useful diagnostic feature intended to help the pupil find his own difficulties and correct them by additional drill and practice.

Book three carries along the work similar to book two, but throws more responsibility for learning upon the children than upon the teacher. The problems are more largely based on real business and home-life situations.

Folk Dances for Boys and Girls

Mary Effie Shambaugh. Cloth, 143 pages. Price, $3. A. S. Barnes and Co., New York City, N. Y.

This book will be found of immense value by teachers who desire material for physical-education classes, for playground work, and for adult social-center use. The book contains 39 carefully selected folk dances from European sources ranging all the way from the Rocky Road to Dublin to a Ukrainian sword dance.

The Beginnings of Education in Maine

By Ava H. Chadbourne. Cloth, 135 pages. Published by the Bureau of Publications, Teachers' College, Columbia University, New York City.

An historical study of the beginnings and progress of private and public education in Maine from 1602 to 1820.

Legal Limitations on the Rights and Powers of School Boards with Respect to Taxation

By Wayne W. Soper, Ph.D. Cloth bound, 123 pages. Published by Teachers' College, Columbia University, New York City.

This book primarily deals with the subject of taxation with the thought of familiarizing the school administrator with his relation thereto. It assumes that school boards possess the delegated power to impose taxes under certain limitations and restrictions. This does not happen to be true in all states.

There are states in which the several school units have the power to levy taxes and maintain the machinery for their collections. There are other states, however, where the municipal government operates the tax department and where the school authorities can merely name or recommend the needs of the school system. Frequently the amount appropriated is subject to the approval of the local governmental unit.

The book nevertheless has definite value in that it lays before the school executives of the country the intricacies of taxation. Thus the author discusses with remarkable clearness the nature and source of the taxing power of the school district. It submits the following summary:

1. The school district or other local subdivision authorized to conduct the schools has no inherent power of taxation. It acquired such power only through delegation from the state legislature.

2. The extent of the legislature's power to tax and, therefore, to delegate the taxing power is unlimited except by the constitution.

3. The state, through its legislative body, may exercise the power of taxation over the locality to the extent of imposing taxation on the locality against its wish for the support of public schools.

4. Delegated power must be exercised in strict conformity to statutory enactments. This delegated power of taxation may be recalled at the will of the state.

5. Boards of education not only possess, through delegation, the power to tax, but are duty bound to exercise it, even though they or the taxpayers, deficient in appreciation of education's benefits, refuse to sanction the tax.

6. School taxes can be levied for all schools controlled in whole or in part by the state, but are generally forbidden for private and religious schools, under the principle that all taxation must be for a public purpose.

7. The amount of tax as well as equality and uniformity of imposition are matters for the state to determine.

The persons and the property that may be taxed and the place of taxation are described. The exemptions are enumerated, and the routine entered into in the levying and collection of taxes is explained. The rights and remedies of the taxpayers are well discussed.

A valuable chapter in the book is one that is devoted to the author's conclusion on the subject. It says that: "To acquire a fundamental knowledge of the powers of boards of education, it is necessary to seek the source of that power. No political subdivision of a state has inherent power to tax. That power resides in the state, exercised by the legislature, and restricted only by the constitution. The school district's power of taxation is a delegated one. It must be exercised in strict conformity to every constitutional and statutory requirement. Only the board of education can exercise this delegated power; it may not be redelegated or transferred to other ministerial or executive officers or bodies. These facts should influence the thinking of a board of education in each contemplated act of taxation.

"The author contends that 'ignorance of the principles governing property that is taxable and the place of taxation may result in both a loss of school revenue and an injustice to property owners.' And he concludes by saying:

"A general knowledge of the principles deducted in this study should impress boards of education with the sanctity of the trust imposed in them as guardians of the property and resources of the schools, all of which exist for the express purpose of providing equal educational opportunities for the nation's children. All taxable property should pay its share of the burden for school support and should pay it in the situs determined by law. Rights of taxpayers should not be violated either by ignorance or caprice."

Columbia Research Bureau Chemistry Test

Eric R. Jette, Samuel R. Powers, and Ben D. Wood. Form A and Form B. World Book Company, Yonkers, N. Y.

These tests are intended to be given at the close of a fairly complete course in general chemistry. They are of the paper type and require no laboratory manipulation. Each is divided into three parts taking up information, equations, and problems in mathematics of chemistry.

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By Joseph B. Orleans, Jacob S. Orleans, and Ben D. Wood. Test 1, Form A and Test 1, Form B. Specimen set price, 30 cents, postpaid. World Book Company, Yonkers, N. Y.

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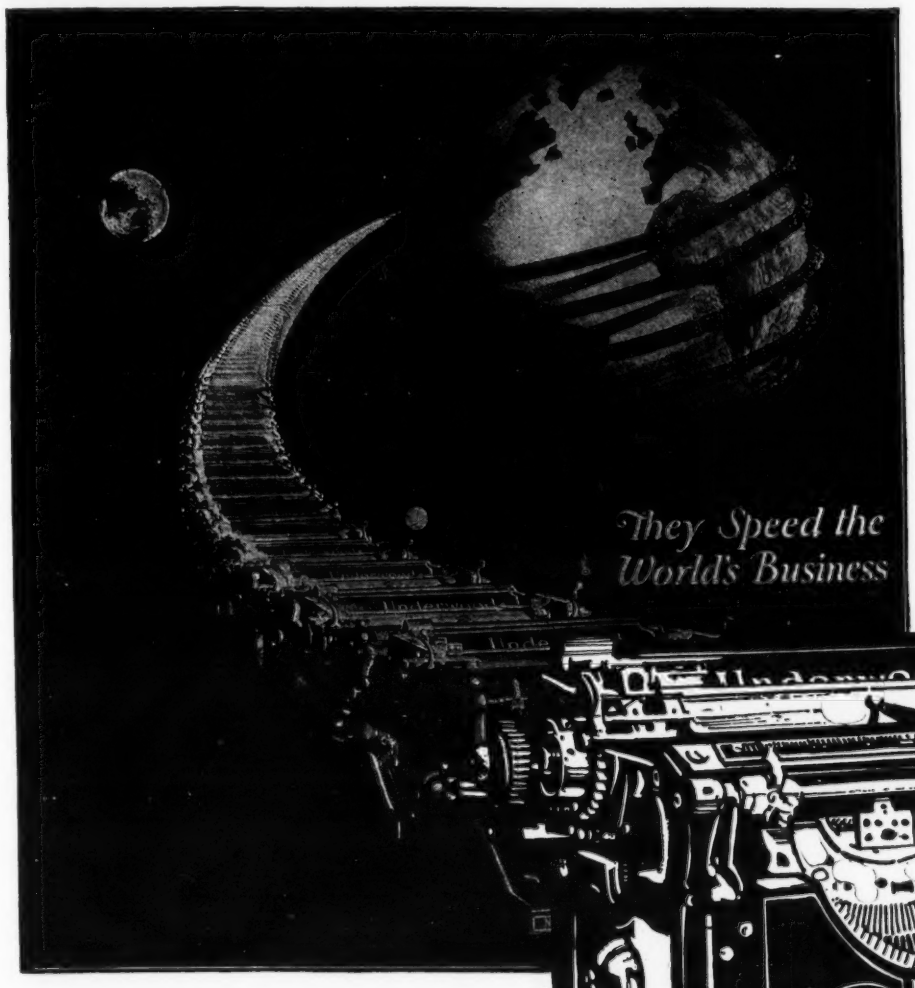

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(Concluded from Page 132)

should appeal to teachers not only because of their validity, but also because of the ease with which they can be scored.

Modern Plane Geometry

John C. Stone and V. S. Mallory. Cloth, 14+474 pages. Price, $1.40. Benj. H. Sanborn & Co., Chicago, Ill.

The results of many years of teaching the subject and of preparing teachers of mathematics have been embodied in this very human and interesting text. Careful attention has been given to those students in high schools who have a directly practical use for the subject, to those others who must study it but who are not naturally qualified to take a complete course of the traditional type, and to a third group who desire to meet all the requirements for college entrance. The authors have prepared a very complete course so arranged that it will fit the needs of any high school and of any student. The material is presented on the unit plan and contains many teaching devices intended to hold interest and to clarify what would otherwise be very dry mathematical principles and application of principles. Exercises are drawn in part from purely mathematical sources, in part from very practical industrial and commercial practice, and in part from social situations. The material, according to the authors, has been fully tested under classroom situations.

Senior Mathematics

(Book III) Ernest R. Breslich, Cloth, 13+205 +20 pages. Price, $1.65. The University of Chicago Press, Chicago, Ill.

This is the third of a series of high-school mathematics texts. It completes advanced algebra and introduces the student to the fundamental principles of analytic geometry. The standard of work required is rather high, but it is excellently organized and thoroughly teachable. The exercises and problems are based on industrial and social situations and are quite complete.

Solid Geometry

Ernst R. Breslich. Cloth, 24+157 pages. Price, $1.65. The University of Chicago Press, Chicago, Ill.

This textbook for advanced high school or junior college use assumes that the student is familiar with the elementary principles of geometry and that he is competent to take on a rather stiff course involving a broad consideration of three dimensional figures. The book is organized on the unit plan, each chapter forming a teaching unit. The exercises are rather complete and are taken from imaginary or purely mathematical sources.

Stories from Polish History

Monica Gardner. Cloth, 178 pages. Price, $1.25. The Bruce Publishing Company, Milwaukee, Wis.

The material is presented in story form, but constitutes an accurate statement of the high spots in the romantic and often sad history of a brave northern nation which has been practically wiped out a number of times, but has always regained its place in the family of nations.

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Truman L. Kelley, Giles M. Ruch and Lewis M. Terman. Forms V and W. Specimen Set, 50 cents, postpaid. World Book Co., Yonkers, N. Y.

This is a complete revision of the widely used Stanford Achievement Test. Forms V and W are offered for use in primary grades 2 and 3, and for advanced grades 4 to 9. They constitute without question the best complete available battery of tests in reading, writing, language, literature, history and civics, geography, health, and arithmetic. The two forms have been carefully standardized so that they are in every way interchangeable and comparable.

The Reading Interests and Habits of Adults

A preliminary report by William S. Gray and Ruth Munroe. Cloth, 305 pages. Price, $3.50. The Macmillan Company, New York, Chicago.

This is one of a series of studies in adult education and represents a nation-wide survey intended to discover the status of reading in American life. It reports a number of extensive surveys of special groups of young people and adults, and one of children. In addition to these general studies, it represents a number of special inquiries into the reading habits of 100 residents of Hyde Park, Chicago, and of 170 of North Evanston, Ill. The persons selected in these two high-grade suburban communities may be said to include individuals who are rather above the average of American life, and who represent rather select groups from the standpoint of intellectual attainments, education, and social standing.

The entire study suggests that increasing attention must be given to reading in any and all programs of adult education. It suggests, too, that the acquirement of desirable reading habits must be stimulated constantly after the elementary school has been completed.

The Pioneer Photographer

By William H. Jackson and Howard R. Driggs. Cloth, 314 pages. The World Book Co., Yonkers, N. Y.

The motion-picture and still-picture photographer is an accepted and necessary part of every exploring and scientific expedition of the present day. In the sixties and seventies of the last century no one dreamed how important a service a photographer might render to those hardy explorers and pioneers who crossed our western plains to find mineral and agricultural treasures in the mountains and on the Pacific slopes. The senior author of the present book, who tells in a graphic way the romantic story of his wanderings through the wonderlands of the west, was a pioneer not only in photography, but also in revolutionizing the form of records for scientific and historic purposes. The book is far from a commonplace record. It is full of adventure and achievement, but is a distinct contrast to the usual chronides of western life filled as they are with crime, bloodshed, personal hardship, and the desire for gain. The book is illustrated with photographs taken in the seventies and eighties—most remarkable views and prints considering the types of cameras and plates then in use.

The Rhyme and Story Second Reader

Etta A. Blaisdell. Cloth, 208 pages, illustrated. Little, Brown & Company, Boston, Mass.

Here are fifty stories, some presented in prose, some in rhyme, all delightfully told and beautifully illustrated. The author states that her first concern was to conserve the element of interest; second, to recognize adjustment to grade; and third, to render the book serviceable both for silent and oral reading. The stories are not extracts from things published in the past, but are original and specially written for this volume.

The Slide Rule

By Ernst R. Breslich and C. A. Stone. Paper, 44 pages. Price, 50 cents. The University of Chicago Press, Chicago, Ill.

Two outstanding mathematicians have collaborated in this simple, readable explanation of the slide rule. Every principle of the slide rule is supplemented by typical exercises taken from industry, engineering, and similar practical sources. The explanations given cover not only the conventional types of slide rules, but also the special forms of merchants, surveyors, electrical, power, chemists, and other forms used for special purposes.

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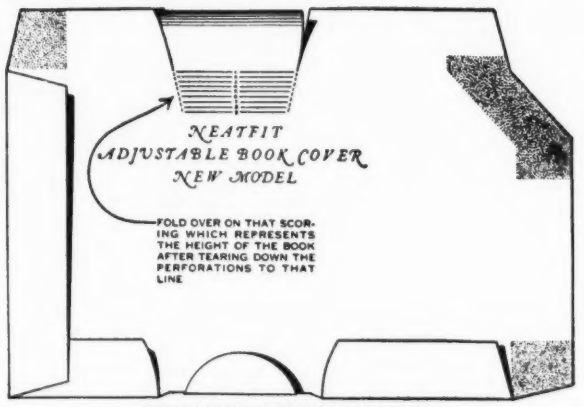
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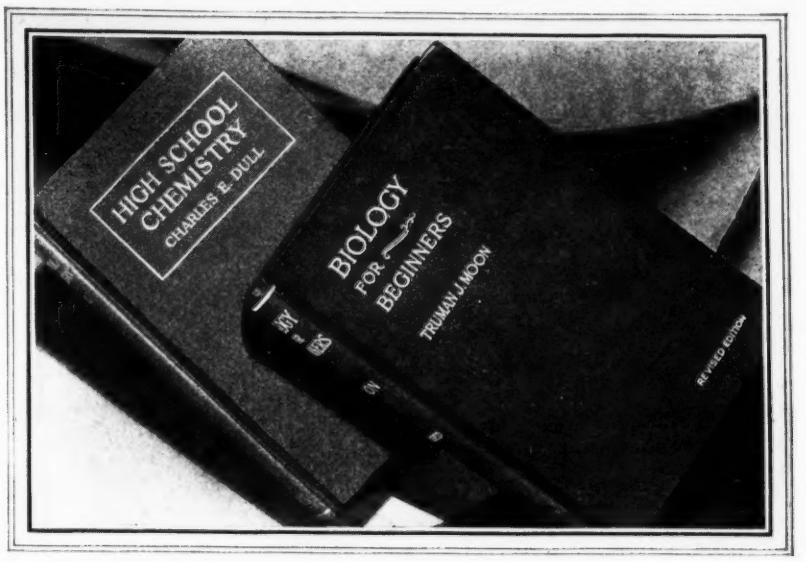

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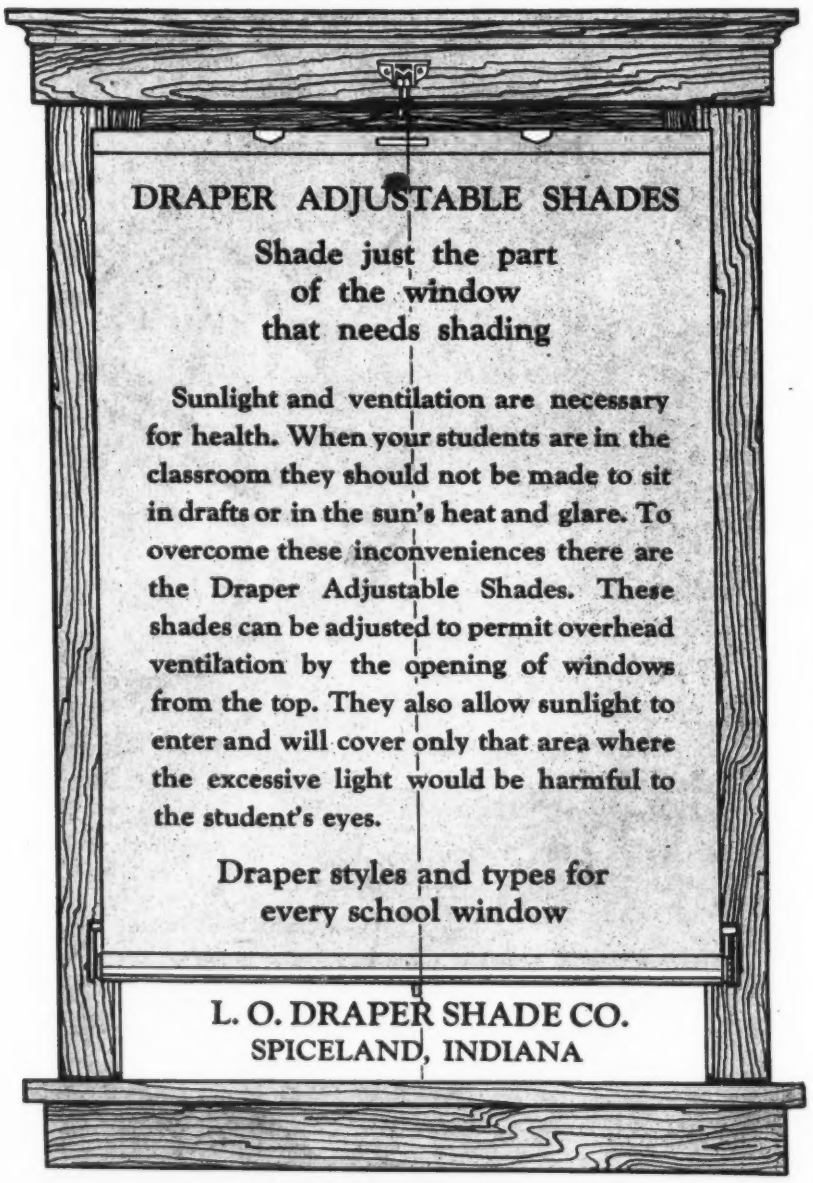

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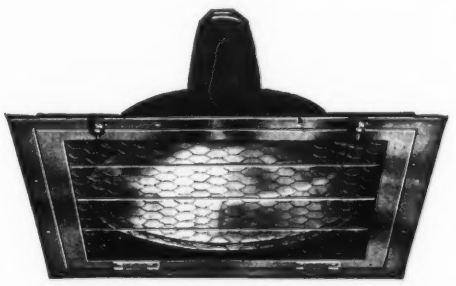

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A BUILDING AND JANITORIAL SURVEY OF THE LOS ANGELES SCHOOL BUILDINGS

(Continued from Page 56)

The Janitorial Survey

After the required information for all buildings and sites had been gathered, actual time tests covering the work of the janitors were made, to ascertain if the rates being paid were correct, and what changes should be made. The janitorial work was timed, inside of all buildings and for outside work, at schools in all sections of the school district, including twenty-eight elementary schools, three high schools and one junior high school. This group represented a "sample" of about eight per cent of the total number of schools affected.

The following "schedule of daily work" is followed at each school as closely as possible, although in many cases, the janitors admit that some of the work required for the test had not been done daily previously.

Schedule of Daily Work

Morning

1. Heating Building: Heating building and attending furnaces, etc.
2. Dusting: Classrooms, offices.
3. Wiping: Woodwork in halls, offices.
4. Cleaning: Glass in doors.
5. Drinking Fountains: To be thoroughly cleaned three times a day.
6. Washing: Wash paste off tables.
7. Office Floors: To be wiped or mopped daily.
8. Sweep all sidewalks and steps and sprinkle grounds.

Afternoon

1. Sweep hall in front of main entrance and outside steps after lunch period.
2. Pick up paper after lunch and dispose of garbage.
3. Sweeping: Classrooms, halls, offices, restrooms, storerooms and stairs.
4. Scrubbing: Lavatories at night, and mop after each recess and noon period. Fill fixtures, paper towels, and soap containers.

The time tests did not take into account any of the weekly work, as this work is almost always completed on Saturday morning. The assumption is that, if enough help is provided to handle the daily work the weekly work will not require more than a half day to complete on Saturday. The janitors are not expected to be on duty on Saturday afternoons.

The following is a schedule of the required weekly work:

Schedule of Weekly Work

1. Wash blackboards.
2. Fill inkwells.
3. Polish all brass and nickle fixtures.
4. Polish teacher's desks in classrooms, office furniture, and woodwork.
5. Mop all linoleum floors, cafeteria, and domestic-science rooms.
6. Mop kindergarten floor.
7. Clean and polish all woodwork in halls.
8. Wipe transoms in halls.
9. Thoroughly clean erasers.
10. Hose off all sidewalks and steps.

An exact time record was kept to account for every minute of each janitor's time, beginning when he reported for duty, until he left the school at night. The total number of minutes spent doing janitor work was kept separate for each building and for each type of work. Lunch periods and idle time were not included.

The Schedule of Wages

From the observations made the following schedule of payment was adopted:

1. The total inside floor area in all modern classroom buildings, old frame school buildings, auditoriums, cafeterias, gymnasiums, shops, and similar buildings of a permanent nature, have a monthly, rate per 100 square feet.....$0.5945
2. The total inside floor area in all bungalows, including those used as classrooms, sloyd and home economics, nurseries, Americanization, and sanitary bungalows, have a monthly rate per 100 square feet 0.7830

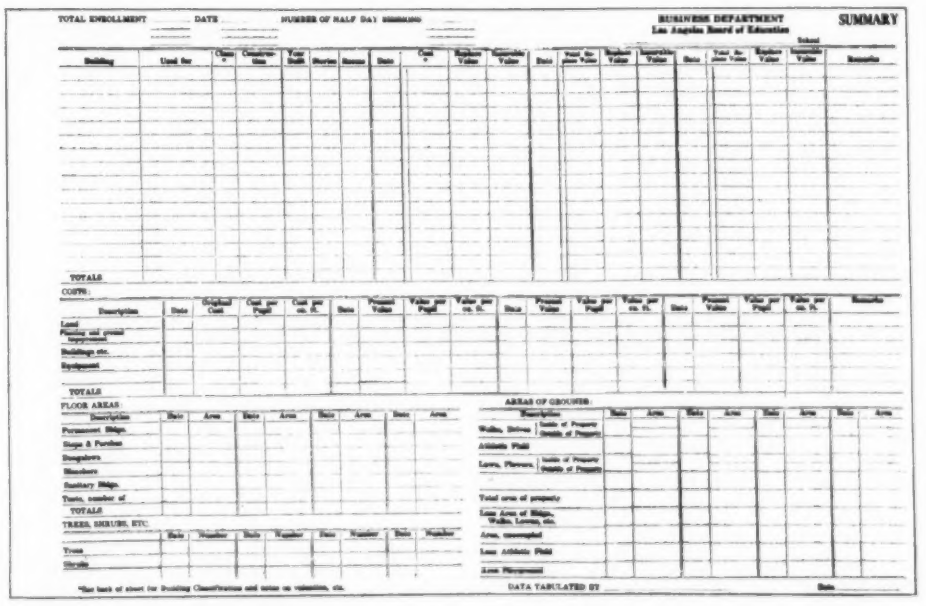

FIG. 3. CONDENSED SUMMARY OF BUILDING SURVEY FINDINGS

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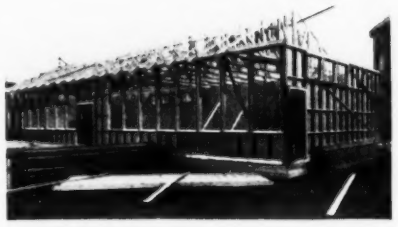

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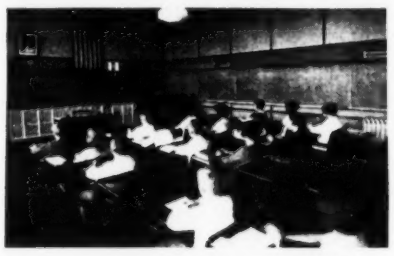

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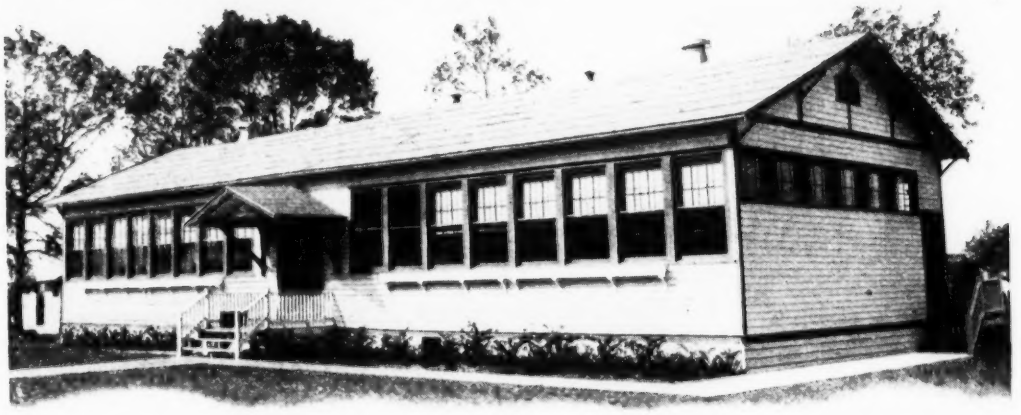

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4.	Sidewalks and drives a monthly rate per 100 square feet	0.1160
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9.	Tents a monthly rate of (each)	4.00
10.	Lunch pavilions on school grounds a monthly rate (each)	3.00
11.	Where janitors are required to bathe children, the monthly allowance is increased 60 cents per hour for the time so spent.	
12.	At high schools or junior high schools, where a gardener is employed, the "janitor allowance" shall not include compensation for trees, lawns, shrubs, or flowers. When more than one gardener is employed, the assistant gardener is responsible for sprinkling all playgrounds and the playground area is not included in "janitor allowance." Where an engineer is employed the floor space in the boiler room and auxiliary rooms are not considered in "janitor allowance."	

By using the areas of the different types of work, multipled by the unit of wage per month for that type of work, the amount of the "janitor allowance" for each school was determined. For elementary and junior high schools, the allowance was $141.75 maximum for the head janitor, and $120.75 or fraction thereof for assistant janitors. If only one janitor was required, he received the maximum pay of $141,75. For night schools the head janitor received $157.50 and the assistant janitor $120.75 or fraction thereof. For high schools the janitors were allowed $2 per evening extra. These schedules have been continued and are at present in effect.

In order to keep the survey up to date, there is a notation showing changes at each school site as rapidly as changes are made. These notations are made by the district foremen of the maintenance division and by the head gardener and the changes are at once entered on the records and the "janitor allowance" adjusted to meet the new condition.

The survey of the Los Angeles district may sound rather complicated and of not much use to smaller school districts, but it is much easier in operation than it sounds, and can be used with good results in districts of all sizes.

It establishes beyond a doubt the correctness of the amount of money a school should have, and my suggestion to those without some definite method of handling the problem, is to make such a survey before you get so many buildings on hand that it becomes difficult work.

PERSONAL NEWS

—Mr. Frank C. Thompson, for the past three years superintendent of the Raymond, N. H., school union, has accepted a position in the Manchester Central High School. Mr. G. H. Harmon of the Andover school union, succeeds Mr. Thompson at Raymond.

—Mr. William J. Harper has been elected superintendent of schools at Bristol, R. I., to succeed W. C. Hobbs.

—Mr. James C. Bushnell has been elected superintendent of schools at Cromwell, Conn., to succeed H. K. Viner, who has gone to Windham.

—Mr. R. D. Tucker of West Bridgewater, Mass., has been elected superintendent of schools at Ludlow.

—Mr. Chester C. Stacy of Webster, Mass., has been elected superintendent of the Brewster, Yarmouth, and Dennis school district.

—Mr. W. H. Phinney of Calais, Me., has been elected superintendent of schools at Fairfield. Mr. Fred English of Mars Hill has been elected to succeed Mr. Phinney at Calais.

—Supt. S. T. Marshall of New Sharon, Me., has been reelected for a three-year term.

—Supt. H. H. Howes of Medford, Mass., has been reelected, with an increase in salary.

—Mr. H. J. Crosby, formerly supervising principal at Franklinville, N. J., has accepted a position in the state education department at Trenton.

—Mr. C. C. Callahan of Woodstock, Ohio, has been elected superintendent of schools at Green Springs, to succeed C. A. Hehn.

—Mr. D. G. Greenler, principal of the school at Green Springs, will become superintendent of the consolidated school at Dola, Ohio.

—Mr. D. F. Klemm has been elected superintendent of schools at Colby, Kans.

—Mr. G. H. Hyde of White Lake, S. Dak., has retired from teaching to accept a position at Kansas City, Mo.

—Mr. W. L. Beren has been elected superintendent of schools at Hamburg, Ark.

—Mr. H. L. Ford has been elected superintendent of schools at Shiloh, Ohio.

—Mr. L. C. Markwell has been reelected superintendent of schools at Ashmore, Ill.

—Supt. McCall Aldrich of McGill, Nev., has been reelected for another year, and his salary increased to $4,800.

—Mr. Harvey D. Teal of Stark county, Ohio, has been elected superintendent of schools at Clairton, Pa. Mr. Teal was recently reelected as head of the county schools for a five-year term.

—Supt. C. J. Byrne of Ottawa, Ill., has been reelected, with an increase in salary.

—Supt. J. C. Young of Elk Rapids, Mich., has been reelected for another year.

—Mr. H. L. Rhude of Blanchester, Ohio, has been elected superintendent of schools at New Holland.

—Mr. E. L. Scott of Kingman, Ind., has been elected superintendent of the high school at Clayton. Mr. Jack Brown succeeds Mr. Scott at Kingman.

—Mr. W. E. Games of Ridgeway, Ohio, has been elected superintendent of Rosedale Centralized Schools in Madison county.

—Mr. Dale Alcorn of Champaign, Ill., has been elected superintendent of the Melvin Community High School at Melvin. Mr. Alcorn succeeds Mr. Otis Keeler, who goes to Marshall.

—Mr. Neil F. Garvey of Springfield, Ill., has been elected superintendent of schools at Lexington.

—Mr. H. Emery Binford of Bloomington, Ind., on August 1, became assistant superintendent of schools at Louisville, Ky. In his new position, Mr. Binford will be in charge of the secondary schools of Louisville.

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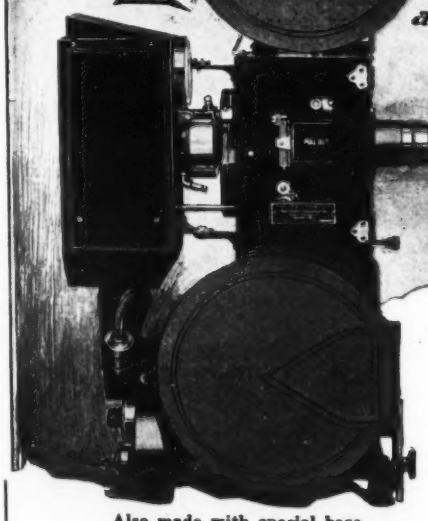

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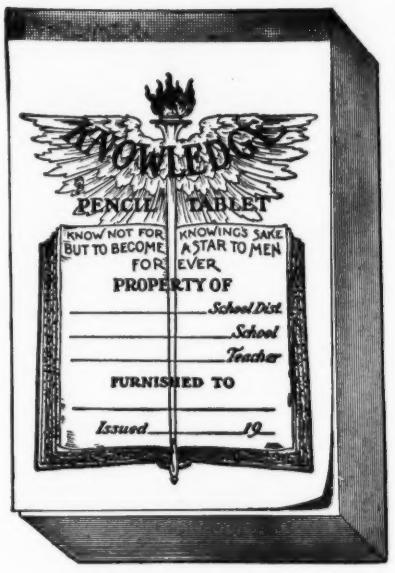

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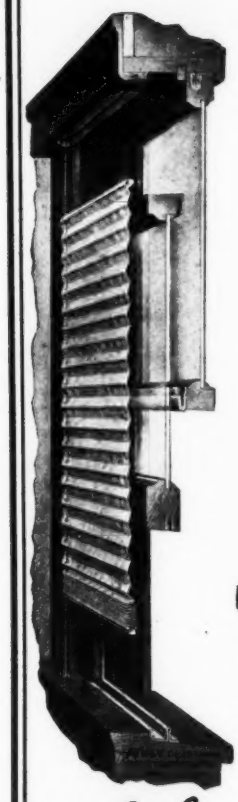

The burning of fuel that can easily be conserved is wasteful. Hundreds of installations all over America have shown that ATHEY weatherstrips pay for themselves in less than 3 years, and continue to pay dividends by saving fuel during the life of the building.

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Hamlin's Sound-Proof doors were used wherever the possibility of the distracting sound waves existed.

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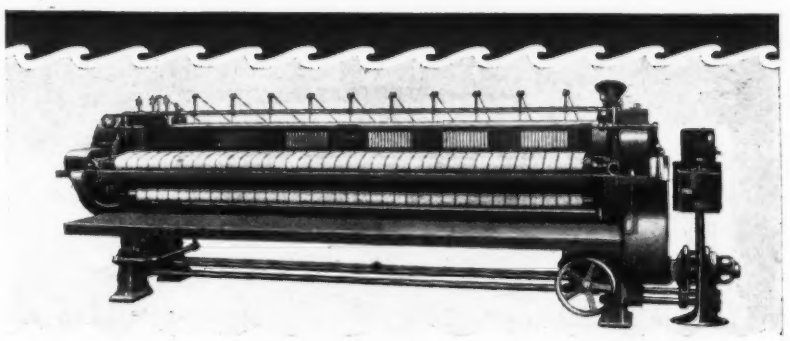

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Many-sided economies *from* one-side operation

FOR school laundries, this Troy Standard Two Roll Flatwork Ironer effects several economies. It requires only 152 by 62 inches of floor space. It reduces labor and time by returning towels, napkins, bed and table linens directly to the feed side in a single operation.

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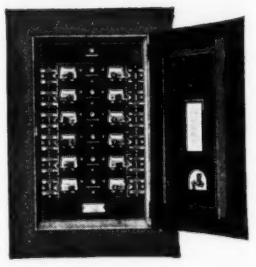
No Hazard No Maintenance



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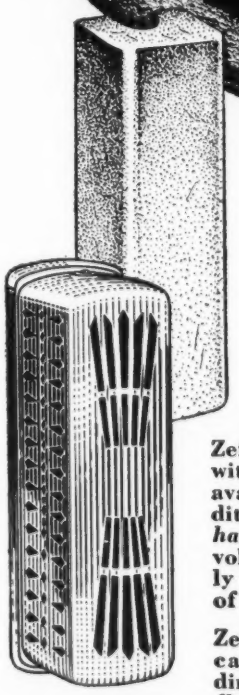

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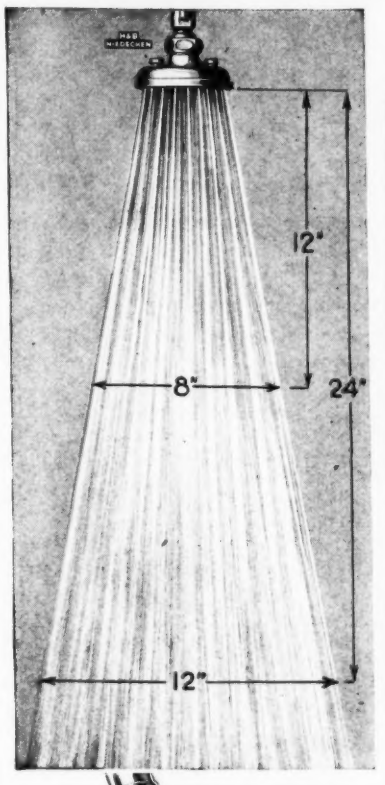

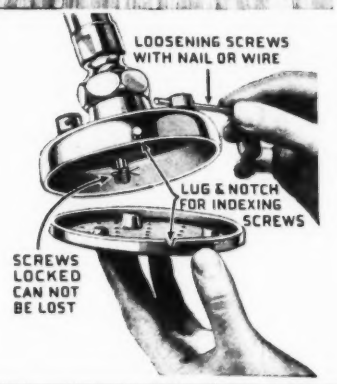

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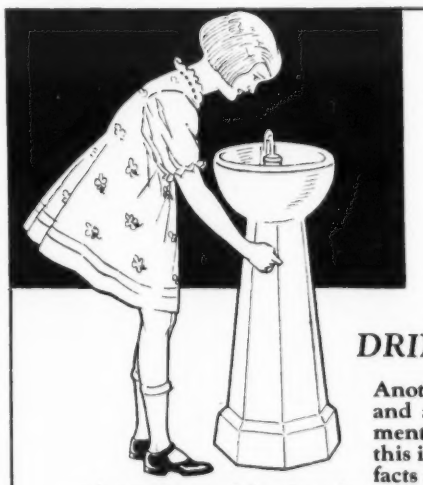

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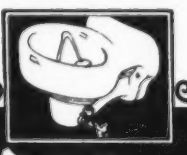

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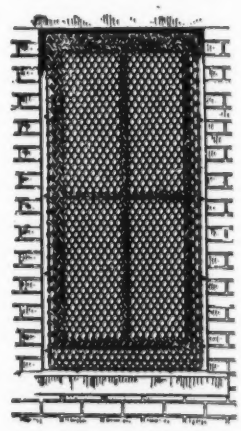

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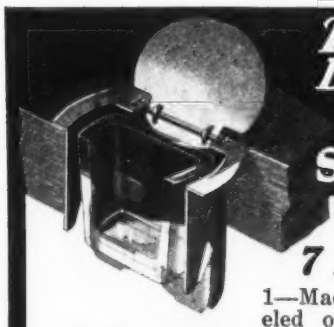

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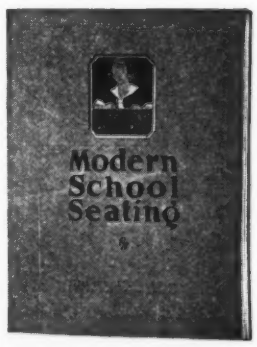

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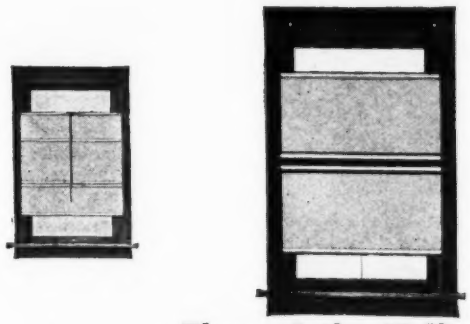

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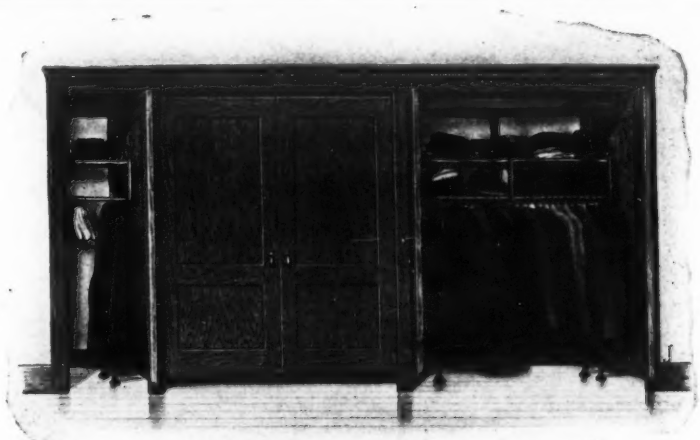

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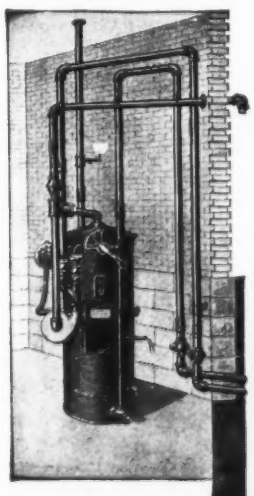

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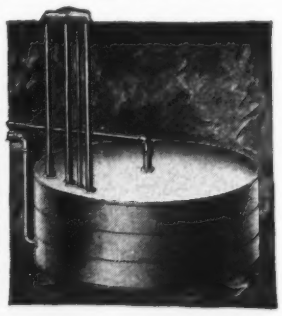

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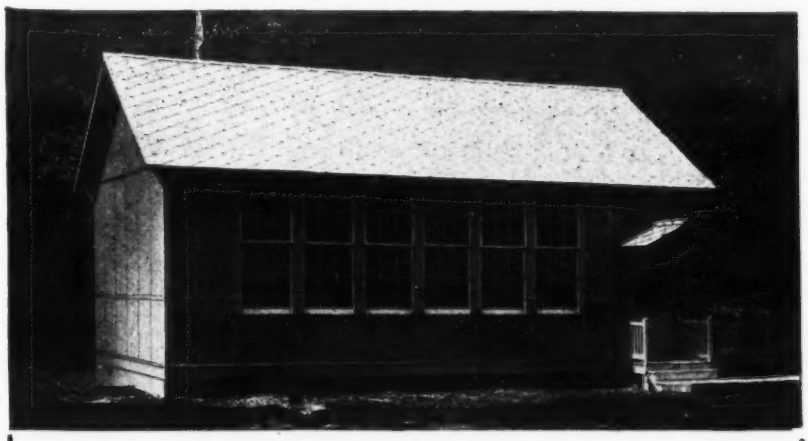

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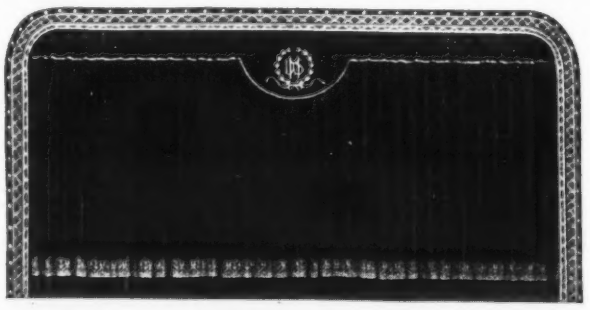

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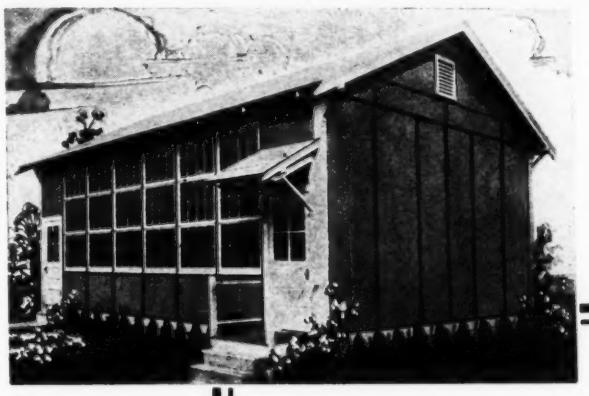

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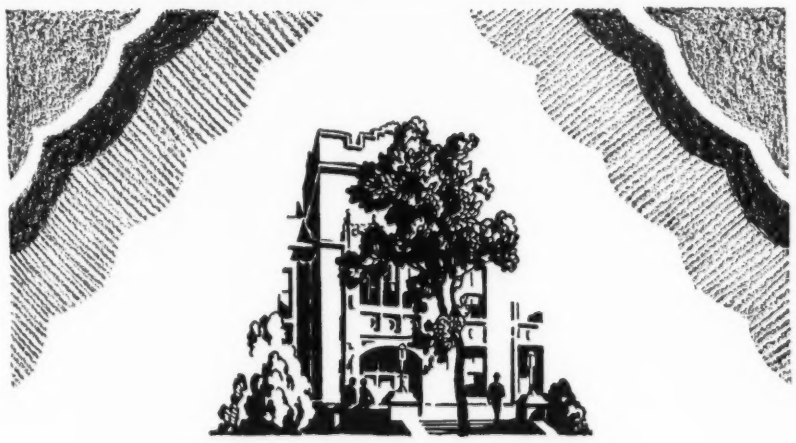

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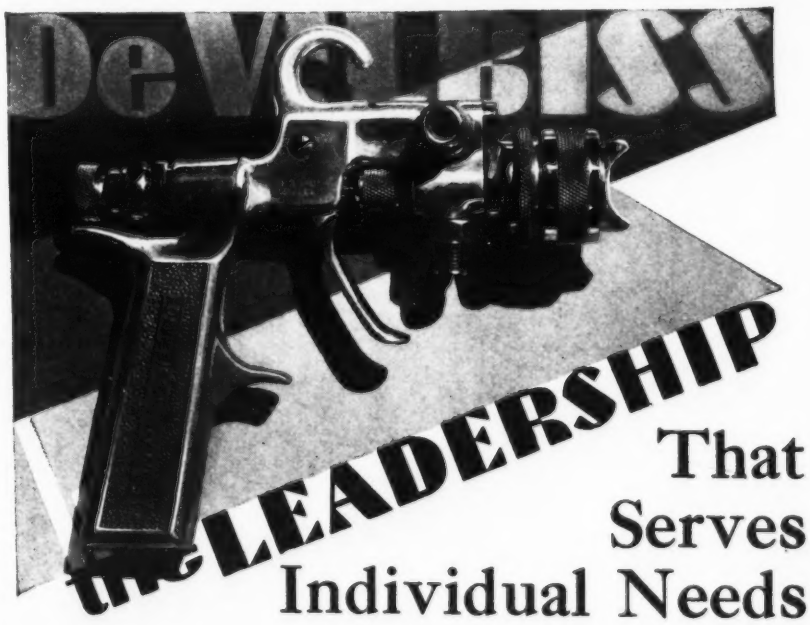

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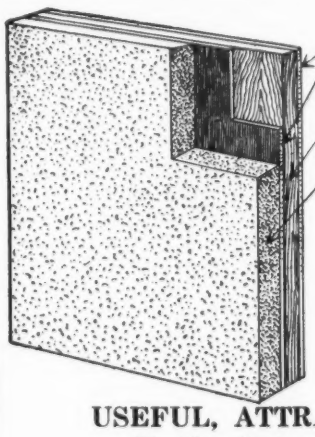

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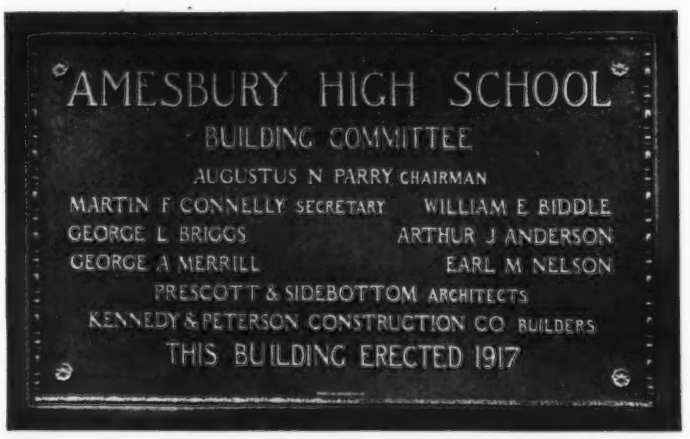

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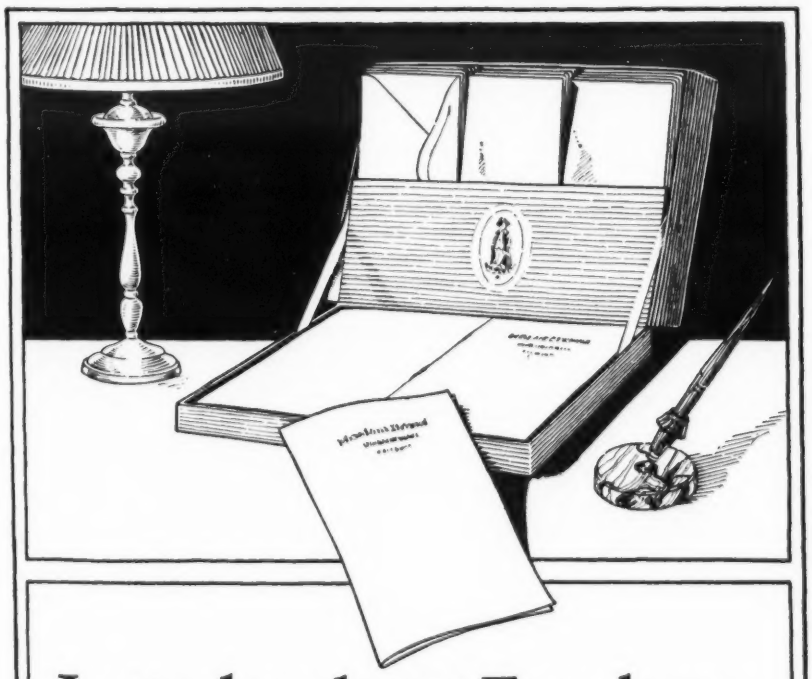

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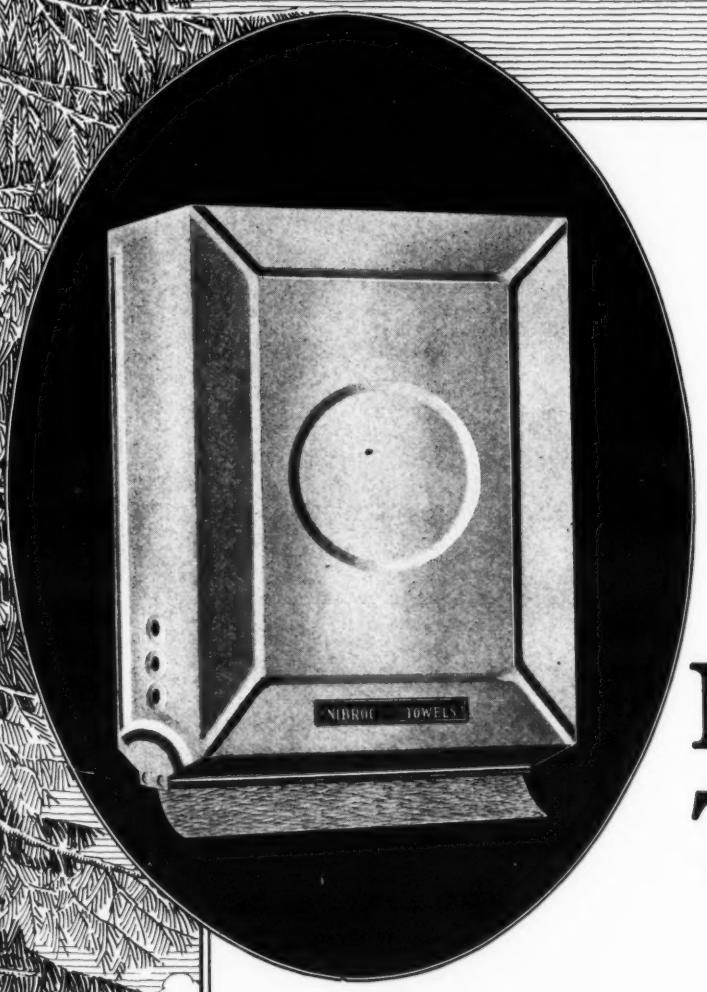

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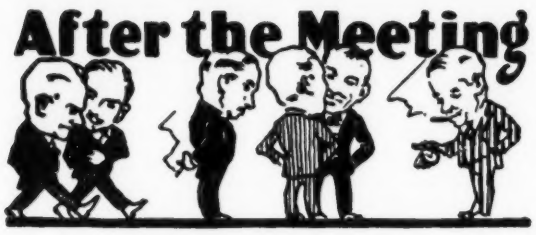


HIS DEGREE

Motoring through his city's colored district, a Southern business man was astonished at seeing, nailed to a decrepit cabin, a crudely written sign:

"SAM JONES, Ph. D."

To appease his curiosity, the gentleman went up to the cabin and was greeted by a huge negro who identified himself as Mr. Sam Jones.

"This sign—what does it mean?" the white man inquired. "Are you really a Doctor of Philosophy?"

"A which?" the colored man asked.

"Are you a Doctor of Philosophy?"

"Naw, suh," Mr. Jones admitted. "Naw, suh. Ah ain't doctahin' nobody."

"Then what does this sign mean—this Ph. D.?"

"'at Ph. D.? Yes, suh. Well, suh, Ah painted 'at sign muhself, suh, an' aftah Ah got muh name on it. Ah kinda run outa room, suh. So Ah had to 'breviate muh puhfession. Yes, suh. 'at Ph. D.—'at's muh puhfession, suh—Post-hole Diggah."

"PROPOSITIONS AND PREPOSITIONS"

Mr. Charles F. Miller, State Superintendent of Public Instruction, Indianapolis, Indiana, tells two very interesting stories. The first one about a rabbit and a roaming preposition. It is typical of how some pupils correct (?) incorrect sentences. It also offers advice to those who gossip. The second story describes one lazy school official I used to know. It can be effectively used in snapping up an inactive bunch of students.

The class was asked to rewrite this sentence in their own language. "The rabbit has no tail to speak of."

One boy wrote: "The rabbit has a tail but it must not be talked about."

The class was asked to use the preposition, notwithstanding, in a sentence.

One boy said: "The seat of my trousers is worn out but notwithstanding."

Scientifically Speaking

"They say a psychiatrist is crazy about her."

"Yes, and there's an entomologist who is bugs over her, too."—Life.

The Boy Agreed

Last fall a teacher named Blank was assigned to a physical training class in a New York City high school. One of the first exercises was preceded by the command "Eyes right." Everybody with the exception of a small Negro boy obeyed the command. To attract the boy's attention the teacher continued to call "Eyes right." Still the boy kept his head and eyes facing front. The teacher became impatient as each repeated command, louder than the preceding one, went unheeded. At last he jumped from the platform and walked over to the offender. He then started to repeat the command, poking the boy in the ribs with his fingers—to accentuate his remarks. He called "Eyes right, eyes right. Do you hear me now? Eyes right, eyes right." The Negro boy looked at the instructor in fright. He then managed to gasp: "Ah know youse right, Mr. Blank. Ah know youse right."—N. Y. World.

Examinee: "Who wrote 'Waverly'? Who wrote 'Waverly'? Great Scott, I've got his name on the tip of my tongue, too!"—London Opinion.

NOT SO CERTAIN

The man who is elected to an important school superintendency is not necessarily in line for congratulations. Dr. Fred Engelhardt of the University of Minnesota, in commenting upon the difficult situations into which some superintendents are projected immediately after their elections, says they are not unlike the case of a certain bridegroom.

The minister was trying to pick out the bridegroom among a crowd just before the ceremony.

"Are you the happy man?" he whispered into the ear of the most likely looking young fellow present.

"That remains to be seen," said the young man, solemnly.

IN THE GOITER BELT

A school nurse at Duluth, Minn., writing in the Journal of the American Medical Association tells that a teacher of a local elementary school was giving an illustrated lantern talk on birds.

The picture of a grouse was thrown on a screen with the comment that she and her mother were at one time preparing grouse for a dinner and found one whose crop was filled almost to bursting, and that she had cut the thin covering to see what was inside.

"And, what do you suppose I found?" she asked.

A quick reply came from a boy of Grade IV, "A goiter."

WHEN HE WOULD BEGIN

Bill Tilden, the tennis star, tells a story that will be appreciated by schoolmen who are having difficulties in managing school affairs.

Tilden tells that he once played at Nassau against F. C. (Pop.) Baggs and was faring rather badly. Between sets, a charming old lady caught Tilden's eye and beckoned him to come to her seat.

"Excuse me, young man," she said, "but can you tell me when Mr. William Tilden is going to begin to play tennis?"

"Heaven only knows, madam," answered Tilden. "I've been asking myself that same question all day."

Comparatively Right

The teacher had given the class a lesson on natural history. At the end she asked a few questions to see how much they remembered.

"Now, Tom," she said, "which animal do you remember most about?"

"Er—the—the warmer," replied Tom.

"Nonsense! There's no such animal."

"Please," said another boy, "I know what he means. He means the otter."

Seats of the Mighty

Two young boys were telling about great deeds, when one who was a professor's son spoke up and said his father occupied the chair of applied physics at Cambridge.

"Dat's nutting," replied the other, "mine occupied the seat of applied electricity at Sing-Sing."—Exchange.

BUYERS NEWS

EASTMAN FILM PAMPHLETS

The Eastman Kodak Company of Rochester, N. Y., has issued a series of 23 six-page pamphlets showing films as aids in teaching geography, physical geography, general science, chemistry, and industrial economics in the classroom. The films were prepared under the direction of experienced teachers, editors, and photographers, and are intended for school use.

The series includes films on anthracite coal, arid regions in the southwest, atmospheric pressure, bituminous coal, corn, cotton growing, electric power, Hawaiian islands, hot-air heating, iron ore, irrigation, limestone and marble quarrying, the Mohawk Valley, the Panama Canal, peanuts, pig iron, purifying water, reforestation of waste lands, tree to newspaper, water cycle, New York water supply, wheat to bread, and Wisconsin dairies.

STRUCTURAL SLATE COMPANY OPENS CINCINNATI OFFICE

The Structural Slate Company of Pen Argyl, Pa., has announced the opening of a branch office at Cincinnati, Ohio. The office will be located at Room 323, 622 Broadway, and will be in charge of Mr. W. L. Johnston.

The new office will offer every facility for the convenience of slate users. Natural slate, as well as Struco slate in its many beautiful colors, will be handled for various installations, and the Penn-Mont roofing slate and other products of the firm will be carried in stock.

DEATH OF JOSEPH HAMMELE

Mr. Joseph Hammele, director and sales manager for the Bausch & Lomb Optical Company of Rochester, N. Y., died at his home on July 2.

NEW STANDARDS FOR COLOR IN SCHOOL FURNITURE

The manufacturers, distributors, and users of school furniture, represented by boards of education and architects, have agreed upon certain definite standards for color in school furniture. The manufacturers acted as a committee of the whole in each case, and through the use of sample color blocks, were able to select a range of three shades of school furniture, brown.

A committee composed of a representative of the Heywood-Wakefield Company, Boston, the Peabody Seating Company of North Manchester, Ind., and the Wisconsin Chair Company of Port Washington, Wis., cooperated with the secretary of the National School Supply Association in preparing suitable panels in the designated shades for examination and approval.

NEW BERLOY STEEL STORAGE EQUIPMENT CATALOG

The Berger Mfg. Company of Canton, Ohio, has just issued its new Catalog No. 106, which illustrates and describes the firm's complete line of modern steel shelving. The catalog shows six standard types of shelving which will be found suitable in varying combinations for practically any kind of storage use in schools. They may be had in shelves, racks, bins, or pigeonholes in almost any required size or shape.

The firm is equipped to supply the wedge-lock heavy duty rack type, the wedge-lock bin type and ledge type, the display shelving, the anglebilt light storage shelving, and the flexibilt units for small items. The booklet also lists accessories for shelving, suggestions for variations in combinations of units, suggestions for arrangements of equipment, keys to standard parts in shelving, and a table of safe load wedge-lock shelving.

Complete information and prices may be obtained upon request to the Berger Company at Canton, Ohio.

NEW FINISH FOR WOOD SURFACES

The American Crayon Company has announced a new material, called "Permatite," which is intended for use in high-grade wood finishing. The liquid seals the pores of wood, brings out the figure of the grain, and is capable of acquiring a highly polished surface, with a minimum of time, effort, and expense.

"Permatite" may be used with excellent results on floors and woodwork, since it produces a pleasing silky sheen. Worn or damaged spots may be refinished without showing laps, and wood surfaces may be easily kept clean through the use of "Permatite." It is especially adapted for use where the building is subjected to hard wear, such as auditoriums and gymnasiums.

Complete information and prices may be obtained upon request to the American Crayon Company at Sandusky, Ohio.

NEW RADIOLAS ANNOUNCED

The Radio-Victor Corporation of America, of New York City, has recently announced two new radiolas employing the AC screen grid tubes and a new power amplifier in a specially designed circuit.

Radiola 44 utilizes three UY-224 screen grid tubes, two of which serve as radio frequency amplifiers, and the third as a power detector. The UX-245 power amplifier tube is used in the single stage of audio amplification. The UY-224 power detector tube has a radio frequency filter which prevents any radio frequency disturbance from being carried over into the audio amplifier.

The UX-245 power radiotron which is used as an audio amplifier, is capable of delivering a power output equal to that of the UX-210 radiotron, but operates with a lower plate impedance which results in an improved quality of tone reproduction.

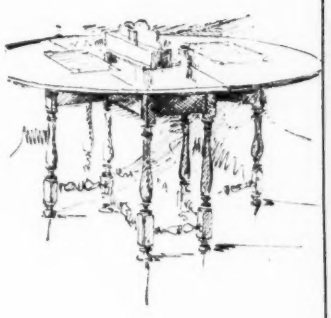
Radiola 44 has a two-in-one tuning and volume control, arranged electrically, and a long-distance switch which is capable of maintaining the quality of reproduction for both strong local and weak-distance stations.

ISSUE CATALOG OF RODDIS FLUSH DOORS

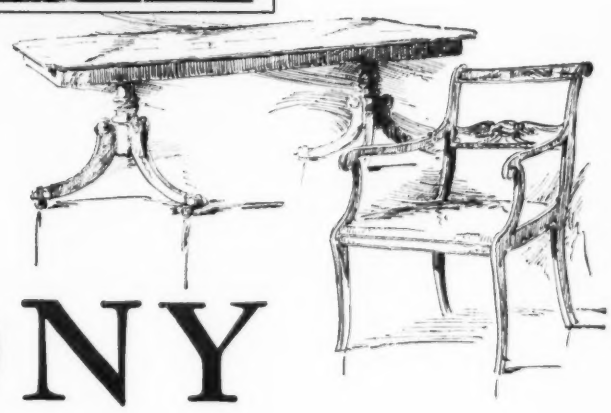
The Roddis Lumber and Veneer Company, of Marshfield, Wis., has issued a 44-page catalog describing and illustrating the firm's complete line of Roddis flush doors. The booklet describes the selection of the wood and its preparation, the construction of the doors, and points out the special features, including fire resistance, sanitation, and sound retardance.

The Roddis Company has also issued a special six-page circular illustrating the special use of Roddis flush doors in school buildings. The circular illustrates in whole and in part Roddis door construction, each section separately and relatively as in the door complete, and lists the special advantages of these doors for school use. In addition to the door illustrated, there are a number of special types which are available upon request.

School officials and architects may obtain complete information upon request to the Roddis Lumber Company at Marshfield, Wis.



Distinctive library pieces created by L. B. designers



HARMONY

a new quality in library interiors

THE newer libraries have conclusively proved the value of harmonious interiors. Not only from a standpoint of beauty and individuality but from that of an atmosphere of restfulness conducive to quiet and study.

An increasing number of libraries call on the nearest L. B. designer for constructive suggestions in consultation with their architects. The result is harmony of architecture and furnishings, proper spacing and equipment, a decided increase in library efficiency.

Benefit from L. B. experience. Write to your nearest L. B. man today. No obligation entailed for this service worth inestimable value.

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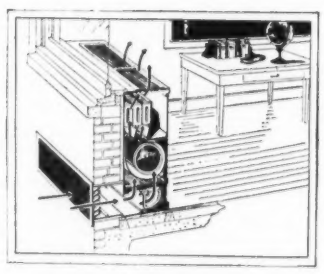
These young folk deserve clean, pure air in their classrooms ... *without drafts!*

AIR is plentiful but not always pure. Raw, outdoor air can be let into a classroom without much trouble. But the *quantity* of air and the ease of obtaining it is no more important than the *quality, temperature* and *control* of it! Drafts are as dangerous as measles!



A Sturtevant Unit Heater-Ventilator in each classroom will bring outdoor air indoors, filter it clean; warm it to precisely the right temperature; supply it in the right quantity ... without a hint of draft ... noiselessly!

Actual photographs of Unit Heater-Ventilator installations in schools, old and new, are found in our new U.V. Catalog number 361. It will be a pleasure to send you a copy on request—no obligation of course!

B. F. STURTEVANT COMPANY

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SUPPLIES OUTDOOR AIR ∽ FILTERED CLEAN ∽ AND TEMPERED

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"Saves us at least 30% on our previous cost"

ONLIWON TOILET PAPER ONLIWON TOILET PAPER ONLIWON TOILET PAPER ONLIWON TOILET PAPER

THIS is the experience of a prominent hospital manager with Onliwon. "Saves a lot of toilet paper," says the manager of the First National Bank Building of Richmond, Va. Tests the country over show savings with Onliwon service ranging up to 50%. They say: "Fewer sheets required". "Five-inch width more satisfactory". "No temptation to use unnecessary paper". Let us send you actual data from leading institutions.

Why this medically approved tissue is most economical

A. P. W. tissues are the unvarying standard of hundreds of institutions. The Purchasing Agents say: "First of all, cleansing tissues must be strong". Hundreds of these men tell us that after installing Onliwon, users unconsciously realize that fewer sheets are necessary. A. P. W. Onliwon assures economy by the very nature of its texture.

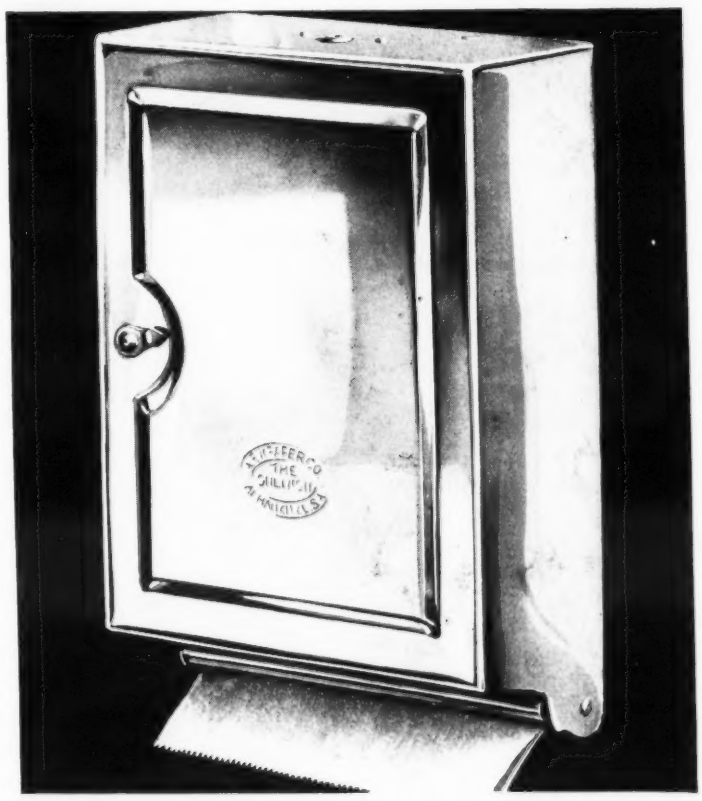
Dispensed from unique, efficient cabinets

A. P. W. Onliwon cabinets are designed to dispense two sheets only at a time. Either rolls or ordinary flat sheets are illogical for your purpose. Handsome, readily-filled Onliwon cabinets furnish you the final safeguard in your job of cutting down maintenance expense.

THE ORIGINAL

ONLIWON

TOILET PAPER AND PAPER TOWEL SERVICE



Onliwon toilet paper cabinet in pressed steel, in nickel finish, Crodon plated, with lock and contents indicator. Also furnished in a variety of other models.

Inferior service, often put up with on the basis of "cost", records show—is invariably more expensive. There is no need to be content with it any longer. Let us give you further information about the money-saving features of Onliwon service. Just mail this coupon.

Please tear out this coupon

A.P.W. PAPER CO., Albany, N. Y.

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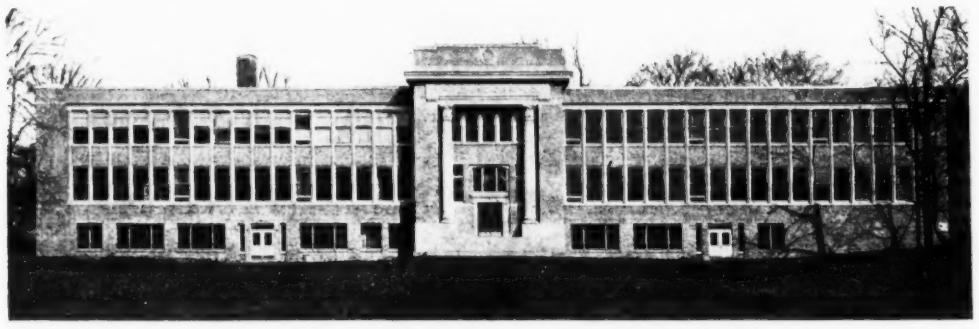
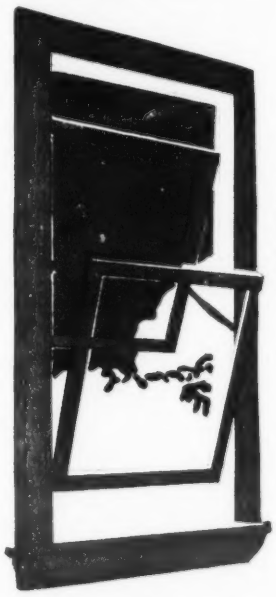
TANDARD SCHOOL EQUIPMENT

Schools in Mount Vernon, N. Y., Equipped with AUSTRAL WINDOWS

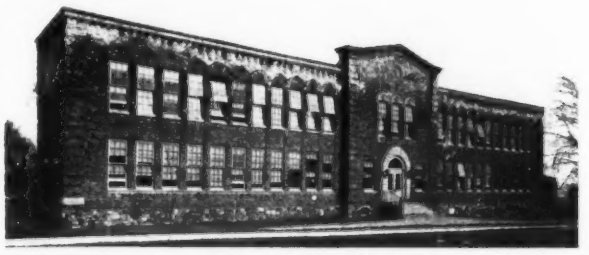


Charles E. Nichols School, Werner and Greenfield, Architects.

Addition to De Witt Clinton School No. 9,
Harold Werner, Architect.



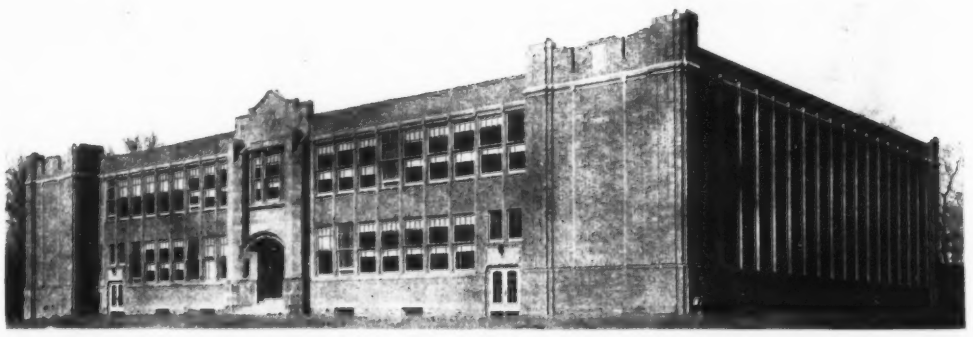
Ventilation Without Draft



Longfellow School, No. 14.
Werner and Greenfield, Architects, Tooker and Marsh, Associates

Washington Junior High School No. 1,
Werner and Greenfield, Architects.

Mount Vernon High School,
Harold Werner, Architect.



William Wilson School, No. 6, Werner and Greenfield, Architects.

It is difficult to think of the superior advantages of our educational system without considering what modern school construction has meant in its development. Fresh air is as necessary to the student's health as grammar is to his education; and discriminating school authorities select the plans and equipment for their schools with the same care as they choose their text books.

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